

DOCUMENT RESUME

ED 090 262

TM 003 537

TITLE International Standard Classification of Education (ISCED) Three Stage Classification System: 1973; Part 2 - Definitions.

INSTITUTION United Nations Educational, Scientific, and Cultural Organization, Paris (France).

PUB DATE Sep 72

NOTE 373p.

EDRS PRICE MF-\$0.75 HC-\$17.40 PLUS POSTAGE

DESCRIPTORS *Classification; Comparative Education; Data; *Definitions; *Educational Programs; International Programs

IDENTIFIERS *International Standard Classification of Education; ISCED

ABSTRACT

The seven levels of education, as classified numerically by International Standard Classification of Education (ISCED), are defined along with courses, programs, and fields of education listed under each level. Also contained is an alphabetical subject index indicating appropriate code numbers. For related documents see TM003535 and TM003536. (RC)

ED 090262

ISCED I.REV.
PARIS, September 1972
Original : English

U.S. DEPARTMENT OF HEALTH,
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TM 003 537

INTERNATIONAL STANDARD CLASSIFICATION OF EDUCATION (ISCED)

THREE STAGE CLASSIFICATION SYSTEM : 1972

PART 2 - DEFINITIONS

(This document supersedes earlier versions of the
classification system as found in documents ISCED
1, ISCED 2, ISCED 3 and ISCED 3a)

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O. EDUCATION PRECEDING THE FIRST LEVEL

The initial stages of organized instruction as defined for purposes of ISCED. The educational programmes included here therefore do not include play groups, day nurseries, crèches, child-care centres, or similar organizations that have no sustained educational purpose. The age of entry to education preceding the first level is arbitrarily defined as not less than three years to eliminate most if not all of the "child-care centre"-type activities mentioned above. The upper age limit for education preceding the first level depends in each case on the usual age for entry into primary education.

Programmes at this level place little emphasis on literacy or general education, the activities being directed mainly toward the children becoming accustomed to group activities such as singing, dancing, participation in rhythm groups and group games to promote healthy and socially desirable habits. Also stressed is the development of skills in handling colouring, moulding, lettering and similar materials as well as simple tools. The programmes are designed primarily to introduce very young children to anticipated school-type environment, i.e. to provide a bridge between a home and school atmosphere.

In addition to the above or the "core", this level covers programmes consisting of the initial stages of organized instruction for those who, due to mental or physical handicaps, are unable to undertake the kind of educational activity followed by unhandicapped children. Programmes for the handicapped have the same general objectives as the "core" programmes, but the pupils generally require more individual attention and a different sequence and range of activities. No age limits can be specified for the handicapped group at this level.

Programmes of education preceding the first level are usually given in nursery schools, kindergartens, or similar institutions, although some are found in special sections attached to primary schools. Programmes for the handicapped may be given in hospitals or in special schools or training centres. Upon completion of these programmes, children continue their education at the first level.

001 General programmes for children of pre-primary age

Programmes are known variously as early childhood education, infant education, nursery education, or pre-school education. They are more concerned with the social, mental and physical development of the young child than with his acquisition of specific knowledge and skill, although they may include activities designed to prepare children for the learning of reading, writing and mathematics.

These programmes are usually optional and should be distinguished from facilities such as day nurseries where the objective is simply to take care of young children outside their homes. The programmes are designed for young children between the ages of three and seven years before they are admitted to regular primary schools, although in some countries they may be considered as the first stage of regular primary education. Extensive use is made of play methods, the toys provided often being carefully designed to promote learning, for example, of numbers, spatial relations or reading.

Programmes are given in nursery schools, kindergartens, and similar institutions, or in special sections attached to primary schools. Children completing programmes preceding the first level usually go on to education at the first level and for many children this pre-school stage is omitted altogether.

080 Special programmes for the handicapped

Programmes of education preceding the first level concerned with the social, mental and physical development of young children who are unable to undertake the usual pre-school or kindergarten programmes because of physical or mental handicaps. These programmes are designed not to transmit specific knowledge and skill or literacy but to introduce very young children to activities in a school-type atmosphere.

Although the play methods, toys, and other equipment employed are similar to those in the regular kindergartens, these programmes tend to be tailored to the particular needs of children with different handicaps. Because of their nature, these programmes are often provided in special schools or special classrooms, and sometimes in hospitals or other institutions. Some children may spend as many as five years in this kind of programme.

Upon completion of these programmes, the children proceed to education at the first level.

1. EDUCATION AT THE FIRST LEVEL

The "core" at this level consists of education provided for children in all countries, the customary or legal age of entrance being not younger than 5 years or older than 7 years. This level then covers five or six years of full-time schooling. Programmes are designed to give the students a sound basic education in reading, writing and arithmetic along with an elementary understanding of other subjects such as national history, geography, natural science, social science, art and music, and in some countries religious instruction is featured. These programmes are rarely specialized by subject but are organized usually on a unit or project basis. In a few countries education at this level is divided into two stages usually a first stage of four years and a second stage of two years which may be combined with the first stage of the second level.

In addition to the above for the "core" this level covers special programmes for the mentally or physically handicapped, many of whom will have made slower progress in education than the average. These programmes are specially tailored for the pupils and the usual order of subject matter is not necessarily followed. For many of these pupils more emphasis is given to vocational training than to general education.

Throughout this level the programmes are organized in units or projects rather than by subjects. This is a principal characteristic differentiating programmes at this level in most countries from those at the lower stage of the second level.

General programmes with a vocational emphasis are found at this level, especially in areas where opportunities for further education are currently limited or non-existent. These programmes are generally within the school system and usually cover most of the traditional elementary programmes but give less attention to general subjects and instead devote the time to vocational instruction suited to the needs of the area served.

Literacy programmes outside the school system for those considered too old to enter elementary schools (or for whom no school places are available) are also included at this level because they require no previous formal education. Because these programmes are designed for illiterate adults they are of a different type to those in elementary school in terms of content. They are usually part-time, voluntary and of relatively short duration (say, up to a year).

101 General elementary programmes

The ordinary first-level elementary or primary programmes usually have a duration of five years (i.e. designed for children between six and eleven years of age), although they may last for only three years or extend to eight years. In some countries adolescents or adults may enrol, usually in special adult classes, to make up schooling missed in childhood. These differ from literacy programmes designed for adults (108 and 110) in that they follow more closely the regular primary school curriculum.

The programmes stress the mental, social, and physical development of the individual. They do not generally aim at imparting knowledge or skills of a vocational or specialized kind. It is expected that the pupils will be taught to read and gradually master writing, and simple mathematics while improving their command of the mother tongue and/or another current language. They will also frequently have the opportunity of learning a little simple science and some of the history and geography of their own and other countries; and aspects of manual, social and physical fitness and co-ordination.

Attendance is compulsory for children in most countries. Certificates are often awarded upon completion of the programmes, sometimes after an examination or other evaluation (or test).

104 Elementary programmes with some vocational emphasis

Programmes at the first level derived from 101 and used in circumstances where the usual general elementary programme alone would be of questionable value. The aim is to combine general education with specific knowledge and simple vocational skills appropriate to adult life and work in the local community. Programmes are usually designed for children between six and fifteen years of age, but older people sometimes enrol. The programmes are often planned to cover three to five years and are considered to be part of the regular school system.

The programmes include reading, writing, and simple mathematics combined with improving the command of the mother tongue or basic language, social studies and simple science. These subjects are often used to impart knowledge of the local environment and the basic principles underlying social and vocational practices such as agriculture, horticulture, animal husbandry, conservation of natural resources, pest control, co-operative organization, local crafts, health and sanitation, and the improvement of housing. Practical work may take up to half the total study time, and is given on school farms or gardens, sometimes on demonstration farms or gardens in the community, and/or in school workshops.

In some countries, programmes of this kind may replace general primary education with no vocational emphasis. In others they may be given as an alternative in particular areas (e.g. in some rural areas) or in particular schools (e.g. "nuclear" schools or "community" schools). Vocational instructors, often part-time, may be employed in addition to the regular primary teachers.

Certificates are usually awarded upon completion of the programmes, sometimes after an examination or test.

108 Simple literacy programmes

Programmes designed to impart the basic skills of reading, writing and sometimes arithmetic to illiterate adults who have no previous education or have regressed into illiteracy, and sometimes to children who have no access to regular schooling. They generally aim to enable the learner to read with understanding and to write simple messages related to his everyday life, and sometimes to do simple calculations.

They do not integrate literacy with general education or with technical and vocational training. In this respect, they differ from functional literacy programmes. Programmes involve organized courses that are usually part-time. They last up to a year or more, and cover at least 100 hours of study. The language of instruction is generally the learner's mother tongue, but may be a second (local, national, or world) language. In the latter case programmes may be longer, involving the element of second language teaching. Note, however, that programmes primarily designed to teach a national language to linguistic minorities or immigrants with varying levels of previous education (or none at all) are included in category 920 - Language ("foreign" or second language) programmes.

Programmes are generally organized by whatever government department or service is responsible for adult literacy (e.g. mass education, social education services, agricultural extension, labour, community development, or *animation* (Fr.)); by non-governmental organizations (e.g. co-operatives, trade unions, women's organizations); by industry; by co-operative arrangements between two or more of these.

Learners are generally organized into classes or study groups, often meeting at night or during off-work hours. Programmes are usually given in organized classes in available buildings, including schools, temples, churches, farms, factories and other work premises, residential centres (e.g. community development, *animation*, co-operative or farmers' training centres), private homes, or occasionally in the open air. Programmes may also be given with the help of radio or television.

Certificates may be awarded, often after the passing of a simple test in reading, writing and arithmetic. Adults usually continue in the same occupation, but may sometimes continue regular education at the first level.

110 Functional literacy programmes

Programmes designed for illiterate adults and young people not enrolled in the regular school system. Semi-literate students who have had an incomplete elementary schooling or who have followed an elementary adult literacy programme, are sometimes admitted. The programmes aim to impart functional literacy "enabling a person to engage in all those activities in which literacy is required for effective functioning of his group and community and also enabling him to continue to use reading, writing and calculation for

his own and the community's development". (1) Some programmes integrate literacy teaching with the acquisition of knowledge useful in the learner's everyday life; others, of a "work-oriented" kind, integrate it with elementary vocational training in fields appropriate to the learner's occupation (e.g. agriculture, crafts, industry, or home economics). They will generally impart the ability to read written instructions at work, popular literature and newspapers, and to keep simple accounts.

These programmes differ from Elementary programmes with some vocational emphasis (104) in that they are designed for adults and are outside the regular school system, and from Simple literacy (108) in that they include elements of general education in such fields as elementary science; health and hygiene; nutrition; civics; religion, and, in the case of "work-oriented" programmes, training for work. They also differ in the level of literacy to be attained. This level may be measured by comparison with the standard reached by children after four to six years of school, or by the number of hours of study required, e.g. not less than 300 hours for students beginning a programme as total illiterates compared with the 100 hours considered a minimum for elementary literacy programmes. Programmes involve organized courses which are usually part-time and generally last a year or more.

Content in "work-oriented" programmes is generally based on a study of the existing skills of the learners and the requirements of the job. Content also includes ideas, knowledge, practices and skills appropriate to the urban and industrial environment. It may further include elements of education for health, family life, family planning, and other subjects relevant to social and individual development.

The language of instruction is generally the learner's mother tongue, but may be a second (local, national, or world) language. Programmes are usually organized by whatever government department or service is responsible for literacy (e.g. agricultural extension, labour, community development, *animation* (Fr.), mass education or social education services); by the armed forces; by non-governmental organizations (e.g. co-operatives, trade unions, women's organizations); by industry; or by co-operative arrangements between two or more of these. Learners may be organized in study groups with a common focus of interest, e.g. members of a co-operative, workers in a particular job, mothers, housewives, etc., often meeting at night or in off-work hours, or, sometimes, in the case of "work-oriented" programmes, in the work place and during working hours. Teaching may take place in any available buildings, including schools, community training centres, private homes, or occasionally out of doors. Classes or groups of workers may receive training both in literacy and in the skills required for work, from instructors or literate workers and classroom sessions may alternate with practical training in the work place. In other programmes the teaching of reading, writing, and calculation may be done by literacy teachers and integrated with vocational training and the acquisition of useful knowledge. Programmes may be given through or supported by radio or television and special courses may be organized for women.

(1) Definition of "functional literacy" adopted by the International Committee of Experts on Literacy, UNESCO, Paris, June 1962.

180 Special programmes for the handicapped

Special programmes at the first level designed for those - usually children - who, because of cognitive, physical, or emotional disability, are unable to progress normally in the regular school curriculum: for example, those handicapped by blindness, deafness, cerebral palsy, severe retardation, emotional disturbance, or a combination thereof. Those enrolled in these programmes may have had experience in a similar programme preceding the first level.

Programmes in this category provide general education, while allowing for individual differences and the development of cognitive, physical, communication, and social skills. Special equipment such as auditory trainers, walking boards, and language teaching aids are often required. Instruction in specific areas may be provided, including, for example, lip-reading instruction, and manual communication skills for the deaf, mobility skills for the blind, or adaptive physical education for those with motor handicaps. Supportive services including audiology, speech therapy, nutrition, psychology, counselling and occupational therapy play a major rôle in special programmes.

Special programmes for the handicapped are provided in special classes in regular schools, residential schools, clinics, hospitals, etc. Children and adults may receive special assistance in any of the above, regardless of their age at the onset of disability. Adults and young children may be grouped homogeneously or heterogeneously in classes, or in institutions providing educational programmes and custodial care.

Note that the programmes included here are programmes of education. Rehabilitation programmes, i.e. health care programmes designed to overcome or mitigate a physical or mental handicap resulting from a disabling illness or accident, are not included in ISCED.

18001 Special programmes for the handicapped, general education

Programmes at the first level, primarily designed to stimulate the cognitive, physical, linguistic, and social development of physically, emotionally or socially handicapped students requiring such special programmes. These programmes stress the acquisition of specific knowledge and skills utilizing approaches particularly suited to individual needs and abilities. Students receive initial instruction in reading, writing, simple arithmetic and language arts. Major emphasis is placed on specific skills related to particular disabilities, e.g. the teaching of braille, or manual communication.

Principal course content usually includes the following: arithmetic, spelling, reading, language, social studies and science. Individuals with major learning weaknesses receive special tutoring. Developmental reading programmes, memory training, perceptual training, mobility training, speech correction, or behaviour management are usually a regular part of a school day in the special programme. Handicapped persons may spend five or six years at this level.

Certification by a licensed medical doctor or psychologist is often required for the admission of a student to a special programme.

Attendance is compulsory in some jurisdictions but not in others. Handicapped adults may receive instruction on a voluntary basis.

Special programmes for the handicapped are provided in special classes, residential centres, clinics, hospitals, or other agencies. Note that students suffering from joint physical and mental handicaps are usually accommodated in programmes for the mentally handicapped (See 18005).

18005 Special programmes for the mentally handicapped

Programmes at the first level, known variously as special classes or auxiliary classes for the trainable or educable mentally retarded. Emphasis is placed on the development of physical, social, and cognitive skills as well as beginning reading, writing and arithmetic. Activities and games, arts and crafts and extensive audio-visual instruction are usually predominant. The main goal is to prepare students for some productive rôle in society.

Enrolment usually depends on the individual's performance in standardized intelligence tests. Students tend to be either trainable (intelligence quotients under 50) or educable (intelligence quotients greater than 50 but under 70). Admission procedures vary from one country to another, some requiring a more thorough evaluation of the individual than others. Programmes are usually given on the basis of the student's ability as shown by his progress or performance in various areas - for example, motor functioning, reading ability, arithmetic skills, communication skills, and perceptual skills. These programmes are usually directed toward the development of vocational competence consonant with the individual's abilities.

Programmes are usually provided in special institutions or in special classes attached to regular schools.

199 Other programmes of education at the first level

This group includes programmes at the first level not included in the programme group definitions above, i.e. 101 to 180. The programmes included are at the first level of education in the sense that admission to them does not require either literacy or previous formal education. It is not likely that many countries have programmes of this kind, all the usual programmes being included in 101, 104, 180 and the literacy programmes.

In some countries young people of primary school age attend classes in such activities as learning to play a musical instrument, dancing, etc., outside the usual school day. In some cases, especially talented children are enrolled in special classes in music, drama, the dance, or other artistic activities in addition to the usual primary school curriculum, with the object of becoming professional artists. The above are merely examples of programmes that would be included here.

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2. EDUCATION AT THE SECOND LEVEL : FIRST STAGE

The "core" at this level consists of education continuing the basic programmes constituting the first level but usually on a more subject-oriented pattern. Some small beginnings of specialization may be seen at this level with some students having the opportunity to direct their attention more particularly to certain types of subjects, e.g. commercial or technical subjects. This level consists of three or four years of full-time schooling. Programmes are composed of the subjects mentioned under level 1 with a broader approach to mathematics, more attention to literature and composition in the mother tongue, other modern languages, and a beginning at specialization in some natural sciences such as chemistry, botany and physical geography. In many countries this level of education is carried on in the same institutions as levels 1 and 0, in some it occurs in "secondary schools" along with level 3, while in some cases separate institutions are provided for approximately the 6th to the 9th years of schooling.

In addition to the above for the "core" this level covers a wide variety of programmes consisting of subject matter usually having a specific vocational emphasis. The common feature of all these programmes is their entrance requirement, i.e. a minimum of first level education (some five to six years of schooling) completed or demonstrable ability to handle the programme through a combination of basic education of something less than five years and vocational experience.

Many of the vocational programmes at this level designed to train for a specific occupation (in contrast to the more general commercial or technical school programmes) are associated with relatively unskilled jobs. Typical cases are domestic science programmes intended to train domestic help; agricultural programmes for farm or plantation hands; elementary commercial programmes for typists and for operators of simple office machines. Programmes for medical auxiliaries such as assistant nurses and assistant technicians are offered in some countries as are teacher training programmes for teachers of elementary school or teachers' aides.

Those apprenticeship programmes for skilled trades and crafts that provide further education as part of the programme, are also included, e.g. building trades, mechanical repair trades, metal trades and printing trades. Such apprenticeship programmes take from three to five years for completion in contrast to the other vocational programmes at this level which last usually from a few weeks to one year.

Also included are programmes for the mentally and physically handicapped which are similar to those at the first level but more advanced in terms of subject matter.

201 General programmes containing little or no technical education

These general programmes account for the great majority of the school population at this level in many countries. They are usually part of compulsory education and often cover two to four years from the age of about 11 or 12 to 15 or 16 years.

The general programmes are designed to extend education at the first level on a broader and more theoretical basis and to stress the intellectual and social development of students. Subject specialization is rare, and no special attention is paid to future vocational intention.

Programmes for adults at this level who have completed primary education are often more specialized, and may give greater emphasis to the problems of everyday life and to social responsibilities. They are generally part-time.

Opportunities are sometimes provided for discovering interests and aptitudes. Students may be divided into "streams", some of which devote more time to manual and practical activities, while others spend more time on theoretical instruction. General education based on the work of the first level takes up most of the study time. It usually includes study of the mother tongue or another current language and its literature; science; mathematics; a foreign language; history; geography; manual training; music; art; moral, civic and sometimes religious education and physical education.

Programmes are usually given in schools that are not concerned with vocational training (e.g. general secondary schools, special grammar schools), or are given as a general section or "stream" in schools also providing vocational training (e.g. composite schools or technical schools). Programmes for adults are given in evening classes in schools; in special institutions providing for adults; and by correspondence. Broadcasts (television and radio) may also be used to supplement other teaching methods.

A diploma or certificate is frequently awarded upon completion of the programme, usually after an examination, either by the schools themselves or by a public authority.

214 Teacher training programmes

This field includes programmes that combine the extension of general education through the second level, first stage, with teacher training designed to equip students who complete the programmes to teach in schools at the first level of education. It includes also programmes for the training

of staff for adult education and adult literacy of extension and community development workers and of vocational and craft instructors. These programmes do not exist at this level in all countries. They are found in countries and areas where a marked shortage of elementary school teachers exists or where adult education, extension, community development, vocational and craft training employ instructors and field workers at local community level.

In programmes for elementary school teachers at least half of the subject matter in a programme usually consists of general education at the second level, first stage. This includes such subject matter as the grammar and literature of mother tongue or another current language; general science; mathematics; history; geography; often a foreign language; and sometimes hygiene, manual training, music, art, moral or religious training, and physical education. The teacher training part consists of the history and principles of education, teaching methods, classroom management, and lesson planning. In addition, some time is spent in practice teaching and in observing experienced teachers. In programmes for adult education, extension and related activities subject matter consists partly of the knowledge and skill to be imparted by the trainee in his future job (e.g. agriculture, bricklaying, etc.) and partly skills of communication and teaching.

These programmes are most commonly taken by adults and young people who have left school, but to handle the subject matter adequately, all candidates must have completed at least education at the first level. In the main, these programmes are of relatively short duration, i.e. one year or less, and often part-time. The programmes forming part of the regular second level - first stage - curriculum are usually full-time and last from two to five years.

In some countries, programmes for "teacher aides" train assistants to participate in classroom and other activities, helping the teacher with routine duties. They do not take full charge of a class.

Usual award for successful completion is a diploma or certificate issued either by the school or by a public authority.

21401 General teacher training for elementary school teaching

Programmes that combine the extension of general education at the first level with preparation for teaching in elementary schools; the students having usually completed four years of education at the first level. The specialized teaching part of the programme is devoted to very simple instruction in teaching practice.

These programmes are found mainly in "developing" countries faced with a marked teacher shortage. Elementary instruction is given in the methodology of teaching, based on the first level school curriculum, class management, elementary child psychology, and the history and principles of educational ideas. Students do practice teaching under supervision.

General education based on the work of the first level takes up at least half the total study time. It usually includes study of the mother tongue or another current language and its literature; science; mathematics; a foreign language; history, geography; hygiene; manual training; music; art; moral, civil and sometimes religious education; and physical education. Limited subject specialization may be allowed.

Usually full-time, most programmes last two to five years, but some consist of shorter training courses. Programmes of the latter type may train adults and young people out of school who have completed education at the first level. Such programmes usually contain little or no general education, and concentrate on methods of teaching. They last from a few weeks to one year or more.

Some "developed" countries provide programmes of training for "teacher aides", who participate in classroom teaching at a non-professional level, helping the teacher with routine duties. Such programmes may be classified here as 21401.

A diploma or certificate of competence is frequently awarded upon completion of the programmes, usually after an examination.

21408 Teacher training for specialists such as those in vocational or adult education programmes

Programmes of this kind at the second level of education, first stage, are found chiefly in the "developing" countries. They are designed for craftsmen and technicians who, having first level and perhaps some second level education, are being prepared to teach their own special craft or skill, either in a school or out of school. Included also are programmes for those who will become agricultural aides, demonstrators, village-level workers in community development, youth leaders, sanitary aides, and similar types of workers in a wide variety of services of non-formal education. In some "developed" countries, programmes at this level are designed to train "teacher aides" who assist in classroom or shop work in schools without taking full charge of a class.

Stress is laid chiefly on teaching practice under the supervision of skilled teachers and on group discussion of problems under the leadership of a teacher or college lecturer. In addition, courses usually include school management, elementary psychology and the history and principles of education.

General education may also be included, e.g. study of the mother tongue, mathematics, national or world history. For programmes in non-formal education the techniques of teaching and of group leadership are supplemented with training in the use of audio-visual media, demonstration, etc.

Programmes, usually full-time, last from a few weeks to a year. Some first level education is required for admission to the programme, usually supplemented by an interview.

A diploma or certificate of competence is frequently awarded upon completion of the programme, often after an examination.

21416 Teacher training for adult literacy teachers

Programmes of this kind at the second level, first stage, are found chiefly in "developing" countries in places where there is a shortage of people with complete second level education. They are designed for persons enrolled as teachers in simple literacy (and sometimes functional literacy) programmes.

Stress is laid on how to organize and manage adult classes and on teaching practice, under the supervision of an experienced teacher supervisor, using the books and other teaching materials and media that will eventually be used in the literacy classes. Content generally includes elements of adult psychology.

Programmes may be full-time or part-time, pre-service and in-service and may last from a week or two to several months.

234 Commercial programmes

This field includes a number of programmes that combine education at the second level, first stage, with some training in commercial, clerical, and stenographic skills as well as an understanding of general office routine.

The principal course content of these programmes consists usually of about one half general education at the second level, first stage, the other half being either general commercial training, training in typing and shorthand, or training in some other commercial programme such as bookkeeping, business machine operation, office clerical operations, etc. The general education part of the programme includes, i.e. study of the mother tongue or another current language and its literature; mathematics; a foreign language; history; geography; civic and sometimes religious education; and physical education. The specialized or commercial part of the programme varies according to the particular speciality. The list of subjects includes commercial correspondence, typing, shorthand, bookkeeping, business law, filing, operation of office equipment and machines, commercial geography, elementary economics.

Programmes are sponsored by a wide variety of schools, including state schools and private business or secretarial schools or colleges, business machine companies, private employers, government departments, etc. The programmes forming part of the regular school programme at the second level, first stage, are usually full-time and last from three to five years. Many of the other programmes have a duration of one year or less, and some of them (for example, training courses provided by vendors of particular machines) may last for only a few weeks.

Usual minimum educational prerequisite is completion of education at the first level. Admission to some programmes, particularly those that do not form part of the regular secondary school system at the second level, first stage, may be granted primarily on the basis of interest and aptitude as indicated by experience and maturity rather than on the basis of educational attainment.

Usual award for successful completion of a programme is a certificate or diploma.

23401 General commercial programmes

Programmes that combine the extension of general education at the first level with a knowledge of simple commercial, clerical, and secretarial activities. The programmes are not intended to provide vocational training in the sense of the skills, knowledge, and abilities required for a specific occupation but simply to provide a general background in office work. Those enrolled have completed at least four years of education at the first level, and these programmes usually last two to five years, full-time. These programmes are sometimes attended by adults or by young people who have been out of school for a time, for such students, the programmes may be offered part-time and may be of shorter duration (e.g. one year). In most cases the general education component is important, but it may be somewhat diminished in the part-time programmes.

The specialized part of the programmes deals with subjects such as commercial correspondence, simple bookkeeping, filing, typing, shorthand, the use of office equipment, commercial geography, and the distribution of goods and services.

General education at the second level, first stage, usually accounts for at least half of the total study time. It includes study of the mother tongue and/or another current language; simple science and mathematics; history; geography; and sometimes civics, religious education, and physical education.

Programmes are usually given as a special section or "stream" in a general (secondary) school or in special institutions, public or private, such as commercial colleges, technical schools, business colleges, or secretarial schools.

Usual award for successful completion of a programme is a certificate or diploma, usually issued by the school or college.

23404 Typing and shorthand programmes

These programmes are similar to those in 23401, the distinction being that within the specialized vocational component great stress is placed on the acquisition of skill in typing and shorthand. The general education component is often diminished to a third of the total time, one third or more is allotted to shorthand and typing, and the remainder to learning about general office routine.

The definition in 23401 applies in all other respects.

23499 Other commercial programmes

Programmes that combine the extension of general education at the first level with training in an aspect of commercial or office work other than typing and shorthand. The chief aim is to provide background in some aspect of office work and routine while extending the student's general education.

Those enrolled have completed at least four years of schooling at the first level, and most are engaged in full-time education in a programme to last for two or three years. Some may be adults or young people who have left school, and, in this case, the programmes may last only a few months or weeks, part-time.

The specialized part of these programmes usually stresses one aspect of office work, such as bookkeeping or business machine operation, but they also include some training in general office routine, filing, typing, and business correspondence.

The general education component varies in relative importance according to the kind of institution providing the programmes and the kind of student enrolled. It usually includes study of the mother tongue and/or another current language; commercial geography; current affairs; history; mathematics; and science.

Programmes may be given in secondary schools, public or private commercial colleges, business or secretarial schools or colleges. Occasionally they are offered by business machine companies or private institutions concerned with promoting the use of a particular type of machine. They may be brief in-service or retraining courses.

A diploma or certificate of competence is usually awarded by the schools or colleges themselves.

250 Health-related auxiliary programmes

This field includes a variety of programmes that usually combine education at the second level, first stage, with some simple training in general health-related procedures. The programmes are designed to prepare students for careers as assistants to public health auxiliaries. At this level the programmes are typically directed towards the application of technology in relevant procedures rather than towards the theoretical and scientific principles involved.

Important subject matter included in these programmes consists of study of background subjects such as chemistry, biology, basic human anatomy and physiology, hygiene, and first aid.

Programmes may be either full-time or part-time, day or evening, and usually include practical demonstration and student participation in the relevant operations either in practice sessions or as employees. They are often conducted in hospitals, clinics, or special schools.

Usual minimum educational prerequisite is completion of education at the first level, but mature students, especially those with relevant work experience, may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

25001 General medical auxiliary programmes

Programmes that combine the extension of general education at the first level with classroom instruction and practical demonstration of general public health problems and the administrative procedures used in handling them. Included also is study of medical terminology and medical record-keeping practices.

The specialized part of the programmes usually includes the principles of public health, first aid, medical terminology, maintenance of health records, hygiene, and general office procedures.

The general education component usually includes study of the mother tongue and/or another current language; simple mathematics; science (often related to health and hygiene); social studies; civic and/or religious education; art; music and physical education.

Pupils are usually between 11 and 16 years of age, and have usually completed at least four years of first level education. The programmes, mainly full-time, last from two to five years. Programmes for adults are usually more specialized, often part-time, and may last for one year or less.

Programmes are usually given in special sections or "streams" of general schools. Programmes for adults at this level are often held in adult education centres, technical colleges, or other institutions.

Usual award for successful completion is a diploma or certificate issued by the school or by a public authority.

25011 Nursing programmes

Programmes that combine the extension of general education at the first level with classroom instruction and practical demonstration of basic nursing procedures.

The specialized part of the programmes usually includes nursing theory; nursing practice; basic human anatomy and physiology; hygiene; first aid; nutrition; and elementary sociology.

The general education component usually includes study of the mother tongue and/or another current language; simple mathematics; science (often related to health and hygiene); social studies; civic and/or religious education; art; music and physical education.

Pupils are usually between 11 and 16 years of age, and have usually completed at least four years of first level education. The programmes, mainly full-time, last from two to five years. Programmes for adults are usually more specialized, often part-time, and may last for one year or less.

Programmes are usually given in special sections or "streams" of general schools. Programmes for adults at this level are often held in adult education centres, technical colleges, or other institutions.

Usual award for successful completion is a diploma or certificate issued by the school or by a public authority.

25021 Midwifery programmes

Programmes that combine the extension of general education at the first level with classroom instruction and practical demonstration of pre- and post-natal care of the mother and child.

The specialized part of the programmes usually includes the principles of obstetrics and gynaecology; basic human anatomy and physiology; midwifery practice; hygiene; first aid; care of mother and child; nutrition; and elementary sociology.

The general education component usually includes study of the mother tongue and/or another current language; simple mathematics; science (often related to health and hygiene); social studies; civics and/or religious education; art; music; and physical education.

Pupils are usually between 11 and 16 years of age, and have completed first level education. The programmes, mainly full-time, last from two to five years. Programmes for adults are usually more specialized,

often part-time, and may last for one year or less.

Programmes are usually given in special sections or "streams" of general schools. Programmes for adults at this level are often held in adult education centres, technical colleges, or other institutions.

Usual award for successful completion is a diploma or certificate issued by the school or by a public authority.

25099 Other health-related auxiliary programmes

Programmes that combine the extension of general education at the first level with classroom instruction and practical demonstration in the practice of medical technology.

The specialized part of the programmes usually includes the principles or techniques of elementary medical technology; basic human anatomy and physiology; laboratory safety; collection and handling of specimens; shipment of specimens; instrumentation; sterilization and disinfection; laboratory glass and plastic ware; and first aid. Stress may be laid on some of these and some may be omitted.

The general education component usually includes study of the mother tongue and/or another current language; simple mathematics; science (often related to health and hygiene); social studies; civic and/or religious studies; art; music; and physical education.

Pupils are usually between 11 and 16 years of age, and have completed first level education. The programmes, mainly full-time, last from two to five years. Programmes for adults are usually more specialized, often part-time, and may last for one year or less.

Programmes are usually given in special sections or "streams" of general schools. Programmes for adults at this level are often held in adult education centres, technical colleges, or other institutions.

Usual award for successful completion is a diploma or certificate issued by the school or by a public authority.

262 Agricultural, forestry and fishery programmes

This field includes a variety of programmes that combine education at the second level, first stage, with some training in agricultural, forestry or fishery operations.

The specialized parts of these programmes tend to be concentrated on practical aspects of farming, forestry, or fishery activities. These usually consist of work undertaken on special farms, in woodlands or in fisheries. Such practical work is combined with lecture and discussion periods covering some basic principles of agricultural, forestry or fishery operations. The general education component covers such subjects as study of the mother tongue or of another current language and its literature, mathematics, history, geography, and sometimes physical education. Programmes may be either general or specialized in terms of subject matter. Specialities are usually provided at this level in accordance with the particular structure of the agricultural, forestry, or fishery industry in the area.

Programmes vary in duration, i.e. they may be for as long as two or three years, with some lasting only a few weeks. They are usually given in agricultural, forestry, or fishery schools or as special sections in general schools. Programmes for adults may be given in special institutions for adults, or in night classes in schools and technical training institutions.

Usual minimum educational prerequisite is completion of education at the first level. Admission to some programmes, particularly those that do not form part of the regular secondary school system at the second level, first stage, may be granted primarily on the basis of interest and aptitude as indicated by experience and maturity rather than on the basis of educational attainment.

Usual award for successful completion of a programme is a certificate or diploma.

26201 Agricultural programmes, general

Programmes that combine general education at the second level, first stage, with elementary agricultural training. The main aim of these programmes is to meet the needs of pupils in areas in which agriculture is the principal economic activity.

The specialized part of the programmes usually includes work in a school garden or a farm, and practical instruction in the maintenance and repair of simple farm machinery. Principal course content usually includes subjects such as the use and application of fertilizers and insecticides; drainage and irrigation; treatment of waste; composition and treatment of soil; and the preservation and processing of foodstuffs. The general education

component usually includes study of the mother tongue and/or the current language; simple mathematics; science (often related to crop and livestock technology); social studies; art and music; civic and/or religious education; and physical education.

Pupils are usually between 11 and 16 years of age, and have usually completed at least four years of first level education. The programmes, mainly full-time, last from two to five years. Programmes for adults are usually more specialized, often part-time, and may last for one year or less.

Programmes are usually given in special sections or "streams" of general schools or in agricultural schools. Programmes for adults at this level are often held in adult education centres, technical colleges, or other institutions.

Usual award for successful completion is a certificate or diploma issued by the school or by a public authority.

26205 Agricultural programmes, specialized

Programmes at the second level of education, first stage, designed to provide training in an agricultural speciality along with some general education at this level. This kind of programme is usually directed toward improving the skills and knowledge of those already employed in agriculture, or toward equipping those who have left the ordinary secondary school programmes for employment in agriculture.

Principal content of the specialized part of the programmes usually includes work in a school garden or farm, and practice in the maintenance and repair of simple farm machinery, along with the study of one or two subjects such as the use and application of fertilizers and insecticides; the processing of agricultural products; cattle breeding; dairy science; drainage and irrigation; poultry farming; and farm management and record keeping. Relatively little time is usually spent on general education, although brief courses in arithmetic and in the mother tongue and/or another current language are often included.

Programmes are usually given in agricultural or technical schools or colleges, or sometimes in large farm enterprises; they are usually accelerated and intensive, lasting for one year or less.

Usual minimum educational prerequisite is completion of education at the first level, but mature applicants with relevant experience are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

26211 Forestry programmes, general

Programmes that combine general education at the second level, first stage, with elementary training in forestry. The main aim of these programmes is to meet the needs of pupils in areas where forestry is an important (or the principal) economic activity.

The specialized part of the programmes usually includes work projects in the forest and on the maintenance and repair of simple tools and equipment. The principal course content usually includes the ecology of woodlands; growth of trees; chemistry and physics of wood; logging and logging methods; and forest protection. The general education component usually includes study of the mother tongue and/or another current language; simple mathematics; science (often related to forestry applications); social studies; art; music; civic and/or religious education; and physical education.

Pupils are usually between 11 and 16 years of age and have completed at least four years of first level education. The programmes, mainly full-time, last from two to five years.

Programmes are usually given in special schools. Programmes for adults at this level are often held in adult education centres, technical colleges, or other institutions.

Usual award is a certificate or diploma issued by the school or a public authority.

26215 Forestry programmes, specialized

Programmes at the second level of education, first stage, designed to provide training in a specialized aspect of forestry along with some general education at this level. This kind of programme is usually directed toward improving the skills and knowledge of those already employed in forestry, or toward equipping those who have left the ordinary secondary school programme for employment in forestry.

Principal content of the specialized part of the programmes usually includes projects of work in woodlands or forests and in the maintenance and repair of simple equipment, as well as study of one or two subjects such as the chemistry and physics of wood; logging and logging methods; forest land management; forest harvesting; and forest protection. Relatively little time is usually spent in general education, although brief courses in arithmetic and in the mother tongue and/or another current language are often included.

Programmes are usually given in agricultural or technical schools or colleges, and sometimes in large forest enterprises. They are usually accelerated and intensive, lasting for one year or less.

Usual minimum educational prerequisite is completion of education at the first level, but mature applicants with relevant work experience are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

26221 Fishery programmes, general

Programmes that combine general education at the second level, first stage, with elementary training in fishery technology. The main aim of these programmes is to meet the needs of pupils in areas where fishery is an important (or is the principal) economic activity.

The specialized part of the programmes usually includes work projects in fishing, the care of nets and other gear, the simple maintenance and repair of boats and engines; courses in subjects such as pisciculture; the food of fish, crustacea, and molluscs; the identification and classification of fish; the preservation and processing of fish and other sea food; fishing methods; and oceanography. The general education component usually includes study of the mother tongue and/or another current language; simple mathematics; science (often related to fishery applications); social studies; art; music; civic and/or religious education; and physical education.

Pupils are usually between 11 and 16 years of age and have completed at least four years of first level education. The programmes, mainly full-time, last from two to five years.

Programmes are usually given in special schools. Programmes for adults at this level are often held in adult education centres, technical colleges, or other institutions.

Usual award for successful completion is a certificate or diploma issued by the school or by a public authority.

26225 Fishery programmes, specialized

Programmes at the second level of education, first stage, designed to provide training in a specialized aspect of fishery technology, along with some general education at this level. This kind of programme is usually directed toward improving the skills and knowledge of those already employed in fishing or related activities, or toward equipping those who have left the ordinary secondary school programme for employment in fishery.

Principal content of the specialized part of the programmes usually includes work projects in fishing and in the maintenance and repair of fishing gear and other equipment, along with the study of one or two subjects such as the preservation and processing of fish and other sea food; the control and use of wastes; new fishing technology; fish reproduction and pisciculture; the pollution of waters; and fishery protection.

Relatively little time is usually spent on general education, although brief courses are often included in arithmetic and in the mother tongue and/or another current language.

Programmes are usually given in technical or adult colleges, and sometimes on large fishing vessels. They are usually accelerated and intensive, lasting for one year or less.

Usual minimum educational prerequisite is completion of education at the first level, but mature applicants with relevant experience are often admitted with lower educational qualifications.

Usual award for successful completion of a programme is a certificate or diploma.

266 Home economics (domestic science) programmes

This field includes a number of programmes that combine education at the second level, first stage, with some training in domestic science, including general household arts.

These programmes usually consist of at least one half the study time devoted to general education at this level, the other half being either general home economics training, home economics with specialization in cooking and baking, home economics with specialization in dressmaking and sewing, or home economics with other specialization such as household decoration, furniture selection, or family budgeting. The general education part of such a programme usually consists of study of the mother tongue or of another current language and its literature, mathematics, science, history, geography, and sometimes civics, religious education, and physical education.

These programmes are not designed to provide complete vocational education but are intended to introduce the student to the field of domestic science education which will be supplemented later by experience in operating a home, on the job, or by further education.

Most programmes of this kind are given in general secondary schools, often in special classes or sections. Some programmes are designed for adults; these are likely to be held in institutions or community centres, and are often of short duration.

Usual minimum educational prerequisite is completion of first level education. Admission to some programmes designed for adults may be granted with lower educational qualifications to those having relevant experience.

Usual award for successful completion of a programme is a certificate or diploma.

26601 General home economics programmes

Programmes that combine general education at the second level, first stage, with some training in home economics, i.e. housekeeping, sewing, cooking, consumer education and other household arts. These programmes are not designed to provide complete vocational education but are intended to supplement the basic part of education at this level with a general background in domestic or household science. Many countries do not have these programmes at this level of education.

The specialized part of the programmes deals with such subjects as elementary cooking and food preservation, dressmaking and other sewing required for household or family purposes, home decoration and the choice of furniture, and usually some principles of nutrition. General education at the second level, first stage, which usually accounts for at least one half of the total study time, includes study of the mother tongue and/or another current language and its literature, elementary science, elementary mathematics, history, geography, and sometimes civics, religious education, and physical education.

Programmes are given in special sections or classes in a general secondary school. In some cases, programmes of this kind are designed for adults, and may be held in technical institutes or community centres. The latter type of programme is often of short duration (up to six months), and may be provided on a part-time basis.

Usual minimum educational prerequisite is completion of first level education. Admission to some programmes designed for adults may be granted with lower educational qualifications to those having relevant experience.

Usual award for successful completion of a programme is a certificate or diploma.

26604 Home economics programmes with pre-vocational training in dressmaking and sewing

Programmes that combine general education at the second level, first stage, with some training in home economics and specialization in dressmaking and sewing. These programmes are not designed to provide complete vocational education, but are intended to supplement education at this level with some basic household science and especially dressmaking and sewing. Many countries do not have these programmes at this level of education.

A specialized part of the programmes deals with such subjects as elementary cooking and baking, home decoration and the choice of furniture, family nutrition, and especially dressmaking, including simple pattern making, and other sewing required for household or family purposes. General education at the second level, first stage, which usually accounts for at least one half of the total study time, includes study of the mother tongue and/or another current language and its literature, elementary science, elementary mathematics, history, geography, and sometimes civics, religious education, and physical education.

Programmes are given in special sections or classes in a general secondary school. In some cases, programmes of this kind are designed for adults, and may be held in technical institutes or community centres. This latter type of programme is often of short duration (up to six months), and may be provided on a part-time basis.

Usual minimum educational prerequisite is completion of first level education. Admission to some programmes designed for adults may be granted with lower educational qualifications to those having relevant experience.

Usual award for successful completion of a programme is a certificate or diploma.

26608 Home economics programmes with pre-vocational training in cooking and food preservation.

Programmes that combine general education at the second level, first stage, with some training in home economics and specialization in cooking and food preservation. These programmes are not designed to provide complete vocational education, but are intended to supplement education at this level with some basic household science and especially cooking and food preservation. Many countries do not have these programmes at this level of education.

A specialized part of the programmes deals with such subjects as sewing, family nutrition, and elementary techniques in the home preparation of food, especially cooking and baking, including basic sauces, the use of condiments, canning and preserving of fruits and vegetables, including making pickles, jams, etc. General education at the second level, first stage, which usually accounts for at least one half of the total study time, includes study of the mother tongue and/or another current language and its literature; elementary science; elementary mathematics; history; geography; and sometimes civics, religious education, and physical education.

Programmes are given in special sections or classes in a general secondary school. In some cases, programmes of this kind are designed for adults, and may be held in technical institutes or community centres. This latter type of programme is often of short duration (up to six months), and may be provided on a part-time basis.

Usual minimum educational prerequisite is completion of first level education. Admission to some programmes designed for adults may be granted with lower educational qualifications to those having relevant experience.

Usual award for successful completion of a programme is a certificate or diploma.

26699 Other home economics programmes

Programmes that combine general education at the second level, first stage, with some training in home economics and specialization in a home economics subject not covered by the above specialities, i.e. 26604 or 26608. Some examples of the specialities included are household decoration, furniture selection, family budgeting. These programmes are not designed to provide complete vocational education but are intended to supplement education at this level with some basic household science. Many countries do not have these programmes at this level of education.

The specialized part of the programmes deals with such subjects as elementary cooking and baking, dressmaking, and other household sewing, with emphasis on the student's particular speciality within the field of home economics. General education at the second level, first stage, which usually accounts for at least one half of the total study time, includes study of the mother tongue and/or another current language and its literature, elementary science, elementary mathematics, history, geography, and sometimes civics, religious education, and physical education.

Programmes are given in special sections or classes in a general secondary school. In some cases, programmes of this kind are designed for adults, and may be held in technical institutes or community centres. This latter type of programme is often of short duration (up to six months), and may be provided on a part-time basis.

Usual minimum educational prerequisite is completion of first level education. Admission to some programmes designed for adults may be granted with lower educational qualifications to those having relevant experience.

Usual award for successful completion of a programme is a certificate or diploma.

274 Trade, craft, and industrial programmes, n.e.c.

This field includes a variety of programmes at the second level, first stage, which combine general education with instruction and workshop experience and technical or vocational subjects. When given in general secondary schools these programmes are not designed to provide vocational education of the type that results in qualification for a specific type of job, but are intended to provide a general education with a vocational emphasis enabling the student to sample various vocational fields and to acquire some familiarity with workshop methods. Some programmes are designed for school leavers and for adults, and these tend to be more intensive with little or no emphasis on general second level education.

The principal subject-matter content of these programmes includes much of the regular school curriculum at this level, with somewhat less emphasis on language, literature, and social studies, and in some cases with more attention to mathematics, science, elementary drafting, blueprint reading, and a range of technical subjects depending on the student's speciality. In addition to the general technical programmes, the type of programme includes metal trades, woodworking trades, electrical trades, other construction trades, mechanical repair trades, printing and bookbinding trades, food and drink processing trades, and others such as tourism and hotel trades.

Usual minimum educational prerequisite is completion of first level education. In programmes for school leavers and adults, however, vocational interest and relevant experience may be given some weight and be substituted to some extent for previous education.

Usual award for successful completion of a programme is a certificate or diploma.

27401 General trade and craft programmes

Programmes that combine general education at the second level, first stage, with instruction and workshop experience providing a general education suitable as preparation for a range of specialized, more advanced, vocational programmes or for on-the-job training, including apprenticeship.

Principal course content usually includes some basic instruction and shop practice in such subjects as hand- and machine-tool operation, welding and soldering, metal work, woodwork, electrical wiring and basic circuitry, cement work, plastering, bricklaying, tile setting, internal combustion engine maintenance and repair, other mechanical repairs, drafting, blueprint reading, plane geometry, etc. The general education component usually includes mathematics, literature, science, and physical education, with little attention paid to foreign languages, history, geography, or social studies.

These programmes are usually given in general secondary schools or in technical schools. As general programmes, they form part of the secondary school curriculum in many countries.

Usual minimum educational prerequisite is completion of first level education.

Usual award for successful completion of a programme is a certificate or diploma.

27404 Metal trades programmes

Programmes that combine general education at the second level, first stage, with instruction and workshop experience in metal trades. These programmes provide a general education suitable as preparation for a range of specialized, more advanced, vocational programmes or for on-the-job training, including apprenticeship. They are not designed to give specific vocational education for any particular occupation.

Principal course content varies with the particular specialization, but usually includes, i.a. bench work, use of hand- and machine-tools, welding and soldering, blueprint reading, metal casting, sheet metal work, and study of occupational hazards and safety. In addition, the general education component, which occupies at least one half of the study time, usually includes literature, mathematics, science, and physical education.

Usual minimum educational prerequisite is completion of first level education. However, in programmes for school leavers and adults, outside of the usual secondary school programmes, vocational interest and relevant experience may be given some weight and be substituted to some extent for previous education.

Usual award for successful completion of a programme is a certificate or diploma.

27408 Woodworking trades programmes

Programmes that combine general education at the second level, first stage, with instruction and workshop experience in woodworking trades. These programmes provide a general education suitable as preparation for a range of specialized, more advanced, vocational programmes or for on-the-job training, including apprenticeship. They are not designed to give specific vocational education for any particular occupation.

Principal course content varies with the particular specialization, but usually includes, i.a. bench work, use of hand- and machine-tools, methods of joining wood, basic carpentry, varieties of wood and their characteristics, blueprint reading and study of occupational hazards and safety. In addition, the general education component, which occupies at least one half of the study time, usually includes literature, mathematics, science, and physical education.

Usual minimum educational prerequisite is completion of first level education. However, in programmes for school leavers and adults, outside of the usual secondary school programmes, vocational interest and relevant experience may be given some weight and be substituted to some extent for previous education.

Usual award for successful completion of a programme is a certificate or diploma.

27412 Electrical trades programmes

Programmes that combine general education at the second level, first stage, with instruction and workshop experience in electrical trades. These programmes provide a general education suitable as preparation for a range of specialized, more advanced, vocational programmes or for on-the-job training, including apprenticeship. They are not designed to give specific vocational education for any particular occupation.

Principal course content usually includes, i.a. bench work, electrical circuit design, use of electrical switch gear, use of electrical test equipment, diagnosis of faults, basic electricity and the principle of electro magnets, operation of simple electric motors, blueprint reading, drafting, and study of occupational hazards and safety. In addition, the general education component, which occupies at least one half of the study time, usually includes literature, mathematics, science, and physical education.

Usual minimum educational prerequisite is completion of first level education. However, in programmes for school leavers and adults, outside the usual secondary school programmes, vocational interest and relevant experience may be given some weight and be substituted to some extent for previous education.

Usual award for successful completion of a programme is a certificate or diploma.

27416 Building trades programmes, n.e.c.

Programmes that combine general education at the second level, first stage, with instruction and workshop experience in building trades not included in 27404, 27408 or 27412. These programmes provide a general education suitable as preparation for a range of specialized, more advanced, vocational programmes or for on-the-job training, including apprenticeship. They are not designed to give specific vocational education for any particular occupation.

Principal course content varies with the student's particular speciality, but usually includes general shop work to familiarize him with shop work routines, blueprint reading, use of hand- and machine-tools, drafting, study of local building codes, and vocational hazards and safety. Examples of the trades included are cement work, brick laying, tile setting, plastering, roofing, insulation work, heating and ventilating. In addition to the specialized subjects of these trades, the general education component, which occupies at least one half of the study time, usually includes literature, mathematics, science, and physical education.

Usual minimum educational prerequisite is completion of first level education. However, in programmes for school leavers and adults, outside the usual secondary school programmes, vocational interest and relevant experience may be given some weight and be substituted to some extent for previous education.

Usual award for successful completion of a programme is a certificate or diploma.

27422 Mechanical repair trades programmes

Programmes that combine general education at the second level, first stage, with instruction and workshop experience in mechanical repair trades. These programmes provide a general education suitable as preparation for a range of specialized, more advanced, vocational programmes or for on-the-job training, including apprenticeship. They are not designed to give specific vocational education for any particular occupation.

Principal course content varies with the student's particular speciality, but usually includes, i.a. general shop work to familiarize him with shop-work routines, blueprint reading, bench work, use of hand- and machine-tools, internal combustion engine repair and maintenance, other machine and mechanical equipment repair and maintenance, welding, sheet metal work, and study of vocational hazards and safety. In addition to the specialized subjects of these trades, the general education component, which occupies at least one half of the study time, usually includes literature, mathematics, science, and physical education.

Usual minimum educational prerequisite is completion of first level education. However, in programmes for school leavers and adults, outside the usual secondary school programmes, vocational interest and relevant experience may be given some weight and be substituted to some extent for previous education.

Usual award for successful completion of a programme is a certificate or diploma.

27428 Printing and bookbinding trades programmes

Programmes that combine general education at the second level, first stage, with instruction and workshop experience in printing and bookbinding trades. These programmes provide a general education suitable as preparation for a range of specialized, more advanced, vocational programmes or for on-the-job training, including apprenticeship. They are not designed to give a specific vocational education for any particular occupation.

Principal course content usually includes, i.a. printing techniques, press operation, typesetting and plate making, photo-engraving, kinds of paper and their uses, types of printing ink, bindery processes, layout make-up, and study of occupational hazards and safety. In addition, the general education component, which occupies at least one half of the study time, usually includes literature, mathematics, science, and physical education.

Usual minimum educational prerequisite is completion of first level education. However, in programmes for school leavers and adults, outside the usual secondary school programmes, vocational interest and relevant experience may be given some weight and be substituted to some extent for previous education.

Usual award for successful completion of a programme is a certificate or diploma.

27432 Leather and textile trades programmes

Programmes that combine general education at the second level, first stage, with instruction and workshop experience in leather and textile trades, such as tailoring, upholstering, dressmaking, hat and cap making (millinery), shoemaking and shoe repairing. These programmes provide a general education suitable as preparation for a range of specialized, more advanced, vocational programmes or for on-the-job training, including apprenticeship. They are not designed to give specific vocational education for any particular occupation.

Principal course content varies with the student's particular speciality. It usually includes, i.a. general shop work to familiarize the student with shop-work routines, simple pattern making, techniques of cutting, sewing and other stitching, riveting, gluing and other methods of fastening materials, leather tooling, etc. In addition to the specialized subjects of these trades, the general education component, which occupies at least one half of the study time, usually includes literature, mathematics, science, and physical education.

Usual minimum educational prerequisite is completion of first level education. However, in programmes for school leavers and adults, outside the usual secondary school programmes, vocational interest and relevant experience may be given some weight and be substituted to some extent for previous education.

Usual award for successful completion of a programme is a certificate or diploma.

27436 Food and drink processing trades programmes

Programmes that combine general education at the second level, first stage, with instruction and workshop experience in food and drink processing trades, such as milling, baking, confectionery making, slaughtering and meat cutting, fish curing, -canning and -preserving, fruit and vegetable canning and preserving, milk processing, sugar processing, and beverage processing. These programmes provide a general education suitable as preparation for a range of specialized, more advanced, vocational programmes or for on-the-job training, including apprenticeship. They are not designed to give specific vocational education for any particular occupation.

Principal course content varies with the student's particular speciality, but normally includes, i.a. general shop work to familiarise him with shop-work routines, along with study of the particular materials used in his speciality, their properties, uses, and the processes required for their transportation, storage, handling, and processing. In addition to the specialized subjects included in a particular programme, the general education component, which occupies at least one half of the total study time, usually

includes literature, mathematics, science, and physical education.

Usual minimum educational prerequisite is completion of first level education. However, in programmes for school leavers and adults outside the usual secondary school programmes, vocational interest and relevant experience may be given some weight and be substituted to some extent for previous education.

Usual award for successful completion of a programme is a certificate or diploma.

27442 Service trades programmes

Programmes that combine general education at the second level, first stage, with instruction and practice in service trades such as retailing; barbering and beauty culture; waiter-waitress training; hotel trades; laundry trades; dry cleaning and pressing; tourist guide, etc. These programmes provide a general education suitable as preparation for a range of specialized, more advanced, vocational programmes or for on-the-job training, including apprenticeship. They are not designed usually to give specific vocational education for any particular occupation.

Principal course content varies with the student's particular speciality but these programmes usually include instruction and practice in subjects such as the use, maintenance and protection of the relevant equipment or machinery; study of the materials and supplies to be used; occupational hazards and safety; methods and standards of customer service; etc. In addition the general education component usually includes literature, mathematics, science, and physical education.

Usual minimum educational prerequisite is completion of first level education. However, for school leavers and adults outside of the regular school system, vocational interest and relevant experience are often given some weight in determining an individual's suitability for admission to a programme.

Usual award for successful completion of a programme is a certificate or diploma.

27499 Other trade and craft programmes

Programmes that combine general education at the second level, first stage, with instruction and workshop experience in a trade or craft not included in the above list of programme groups (i.e. 27401 to 27442). These programmes provide a general education suitable as preparation for a range of specialized, more advanced, vocational programmes or for on-the-job training, including apprenticeship. They are not designed to give specific vocational education for any particular occupation.

Principal course content varies with the student's particular speciality, but these programmes usually include instruction and shop work practice in subjects such as the use of tools and machines, study of the materials and supplies associated with the speciality, occupational hazards and safety. In addition to the specialized subjects included in a particular programme, the general education component, which occupies at least one half of the total study time, usually includes literature, mathematics, science, and physical education.

Usual minimum educational prerequisite is completion of first level education. However, in programmes for school leavers and adults, outside the usual secondary school programmes, vocational interest and relevant experience may be given some weight and be substituted to some extent for previous education.

Usual award for successful completion of a programme is a certificate or diploma.

280 Special programmes for the handicapped

Special programmes in education at the second level, first stage, designed for those who, because of cognitive, physical, or emotional disability, are unable to progress normally in the regular school curriculum - for example, those handicapped by blindness or deafness, cerebral palsy, mental retardation, emotional disturbance, or a combination thereof. Most of those enrolled in these programmes have had previous learning experience in a similar programme at the first level of education.

Programmes in education at the second level, first stage, are primarily designed to extend and amplify instruction provided at the first level. Subject content may be entirely of a general or partly of a technical nature, and methods of instruction allow for individual differences between students. Programmes continue the fostering of the development of cognitive, physical, communication, and social skills. Special equipment such as auditory trainers, developmental reading programmes, and language aids programmes may be

utilized although usually not to as great an extent as at the first level. The basic subjects at this level - i.e. reading, language, mathematics, and science - are included, and remedial instruction is provided on a regular basis. Vocational education is often included also, particularly for the mentally handicapped. Generally, students have compensated to some degree for a specific disability as the result of previous remedial work, so that instruction can now be provided via a method suitable to their current needs, e.g. manual communication. Academic work closely parallels regular programmes for the non-handicapped at this level. Supportive services including audiology, speech therapy, psychological counselling, and occupational therapy may be important elements in these programmes.

These programmes may be provided in special classes in regular schools, residential schools, clinics, hospitals, or other agencies.

28001 Special programmes for the handicapped, general education

Programmes in education at the second level, first stage, primarily designed to extend the elementary programmes of education at the first level. Stress is placed on the acquisition of specific knowledge and skills by utilizing approaches particularly suited to individual needs and capabilities. The programmes include the basic subjects such as language, mathematics, reading, history, and the sciences, as well as emphasis on remedial training to offset the individual's specific disability, which may decrease as he masters a compensatory skill related to his handicap, e.g. braille, finger spelling, and sign language.

Principal course content usually includes some of the following : mathematics, reading, the mother tongue or another current language, geography, history, civics, and the sciences. Material at this level tends to parallel that presented in regular academic programmes at the second level, although the time required for its presentation may be longer. Those with major learning weaknesses of a specific nature, e.g. reading disability, may receive remedial assistance in that area; thus such activities as developmental reading programmes, perceptual training, mobility training, speech correction, or behaviour management usually constitute a regular part of the daily routine of the special programmes.

Usual minimum educational prerequisite is completion of education at the first level, although the requirements for admission to this type of programme vary and may not be based entirely on prior educational achievement. Attendance may or may not be compulsory. Adults afflicted late in life may participate in education at this level on a full-time or special tutorial basis.

Special programmes for the handicapped are provided in special classes, residential or non-residential centres, clinics, hospitals, or other agencies. Note that students suffering from joint physical and mental handicaps are usually accommodated in programmes for the mentally handicapped (see 28005).

28005 Special programmes for the mentally handicapped

Programmes at the second level, first stage, known variously as special classes, or auxiliary classes, for the trainable or educable mentally retarded. Emphasis is usually placed on vocational education which will allow the student to obtain gainful employment.

Subject-matter content of these programmes usually includes basic subjects such as reading, writing, and arithmetic in addition to vocational classes, work, study or apprenticeship training in such occupations as that of a gas station attendant (petrol station attendant), waitress, short-order cook, filing clerk, upholsterer, etc. Those engaged in a programme for restaurant personnel, for example, may be instructed in etiquette, personal hygiene, and social skills as well as making change, taking orders, cleaning tables, dishwashing, and short-order cooking. Such programmes generally include practical work in a school workshop.

These programmes are usually given in special classes at regular schools, special schools, rehabilitation centres, and private or public training institutions.

Usual minimum educational prerequisite for admission is completion of a similar programme in education at the first level.

Usual award for successful completion is a certificate stating the level of achievement.

299 Other programmes of education at the second level, first stage

Programmes of education at the second level, first stage, not included in the other programme groups, i.e. 201 to 280. The programmes included are at the second level, first stage, in the sense that admission to them usually requires completion of education at the first level or equivalent experience. It is not likely that many countries have programmes of this kind, since the coverage of the other programme groups at this level is quite comprehensive.

In some countries, young people attending school full-time take instruction in playing a musical instrument, dancing, etc., outside of the usual school day. In some cases, especially talented young people are enrolled in special schools or special classes in music, drama, the dance, or other artistic pursuits in addition to the usual school curriculum at this level. Many of these young people who have shown particular aptitude are studying with the objective of becoming professional artists. The above are merely examples of some programmes that would be included here.

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3. EDUCATION AT THE SECOND LEVEL : SECOND STAGE

The "core" at this level consists of education for those who have completed the second level : first stage. General education is still an important constituent but separate subject presentation and more specialization are found at this level. Many students will have moved over to particular sets of programmes such as commercial, trade or technical, while others following the general programmes will be given more leeway in their choice of subject courses. This level consists of three or four years of full-time education.

Additional choice of subjects at this level may include such subjects as physics, biology and geology; classics; some social science; and the fine arts. The general programmes are often designed to provide the subject-matter credits required for university entrance or to prepare students for examinations of the university-entrance type.

In addition to the above for the "core", this level covers an even wider variety of programmes than those at the first stage, consisting of subject-matter mainly having a specific vocational emphasis. The educational programmes included here are those requiring at least the equivalent of some eight years' full-time education for admission or a combination of basic education and vocational experience that demonstrates ability to handle subject matter of that educational level.

Some apprenticeship programmes for skilled trades require at least eight years of education for entry because of the need for basic mathematics, ability to read and interpret plans (blueprints), to work with technical manuals, and to understand and handle complicated tools, machinery and equipment. Such programmes are classified here because of their entrance requirements. Other apprenticeship programmes which themselves provide for the additional educational background required and therefore on entry require only first level education, are included at the second level, first stage.

Other programmes for manual and production types of vocation at this level are those containing subject matter consistent with training semi-skilled or skilled operatives. These are associated generally with such factors as the operation of expensive and intricate machines and equipment in extracting, manufacturing and transport operations; learning to handle materials of various kinds involved in complicated industrial processes; packing and handling products; and learning the skills and knowledge required for assembling and repairing machinery and apparatus. Obviously the educational background required is varied but not less than the equivalent of eight years.

Programmes for education in wholesale or retail trade and in-service operations, include retail food, hardware, etc. trades, as well as hotel and restaurant trades such as those of waiter, housekeeper, house steward and matron and require some second level education for admission in some countries and therefore are found here. Education programmes for personal service work such as that of barbers, beauticians, morticians are also found at this level in some countries.

Home economics programmes at this level are those containing natural science, health, food preparation and household finance courses suitable for qualifying graduates for employment in skilled work. Such graduates are capable of undertaking careers in which experience will lead to responsible work in dietetics, the management of large households or small institutions, etc.

Similarly, office work programmes at this level provide full secretarial skills, knowledge of the operation of complicated office machines, etc. In some countries the para-medical programmes at this level provide full nursing education, instruction in midwifery and prepare a range of medical technicians. Other jurisdictions require complete second-level education for admission to such programmes.

Agricultural, forestry and fishery programmes requiring at least eight full years of schooling are obviously designed for the training of skilled agricultural, forestry and fishery personnel or farm operators. They include theory as well as practical application.

Many of the programmes at this level are designed for adults, many are part-time and include retraining and sandwich courses. Thus the duration of the programmes varies widely, from a few weeks to three years. The important criterion for the determination of level is the educational (or education + experience) prerequisite, but of course the level will be reflected in the complexity, depth, level of abstraction and density of the content.

301 General programmes containing little or no technical education

This field includes programmes in education at the second level, second stage, each of which covers a range of subject matter designed to further the general education provided at the second level, first stage. These programmes stress the theoretical, philosophical, scientific or mathematical aspects of the subjects covered, with little time spent on technical subjects dealing with practical skills.

The principal subject-matter content of these programmes usually includes the mother tongue or another current language and its literature, other modern languages and literature, classical languages and literature, social studies, including history, geography, economics and sociology; natural sciences, including physics, chemistry, biology and geology; mathematics, both pure and applied; the fine and applied arts; and physical education. Although these are general programmes and include most or all of the above subjects, students may specialize to the extent of emphasizing one or another broad category of subject matter. For example, a general programme may emphasize the humanities, or the social sciences, or mathematics and natural sciences, or some other broad subject area, although many students follow a general programme with no such subject emphasis.

Programmes are generally given in secondary schools and many are of the type that lead to qualification for university entrance. They are usually full-time and take from two to four years. Programmes of this kind for adults may be part-time and given in the evening in schools or colleges or in adult education centres. Some of these programmes are given by correspondence or through radio and television broadcasts.

Usual minimum educational prerequisite is completion of education at the second level, first stage. Mature applicants are sometimes admitted with lower educational qualifications on demonstration of ability to handle the subject matter at this level.

Usual award for successful completion is a certificate or diploma.

30101 General programmes with no special subject emphasis

Programmes of general education offered in most countries at the second level of the complete "secondary" school or (senior) high school. They usually stress ideas and understanding rather than the acquisition of practical skills. Studies cover a wide field of knowledge. Programmes, usually full-time, last 2 to 4 years. Admission to the programmes may be open to all who have completed a minimum number of years of schooling or only to those who succeed in a selective examination.

Programmes are often organized under subject headings. A set of basic subjects is usually prescribed while other subjects are optional. The subjects offered usually include the mother tongue or another current language and its literature; one or more foreign languages, modern or classical; social studies, including history, geography, and economics; mathematics; natural sciences. During a three- or four-year course, students may study as many as ten subjects.

In some countries and systems, the subject organization of the programmes may be replaced by "integrated" schemes where problems or projects are studied in "units of work".

Programmes are generally given in secondary schools or upper secondary schools. In some cases they may be given in universities as preparatory classes. Adults taking the programmes usually study in evening classes in schools or colleges or adult centres, or by correspondence. Broadcasts (television and radio) may be used to supplement other teaching methods.

A certificate or diploma is usually awarded by either the school or a public authority to those who complete the programmes successfully. This certificate or diploma may be required for admission to universities or colleges.

30104 General programmes with special emphasis on the humanities and social sciences

These are programmes alternative to 30101, which permit some concentration on the humanities and social sciences without neglecting other fields of knowledge. Students are generally between 15 and 19 years of age and have completed 7 to 9 years of schooling. Programmes, usually full-time, last 2 to 4 years. Admission to the programmes may be open to all who have completed a minimum number of years of schooling or only to those who succeed in a selective examination.

Programmes are usually organized under subject headings but may be otherwise grouped, for example as "projects". The subjects offered usually include the mother tongue or another current language and its literature; one or more foreign languages, modern or classical; philosophy and sometimes religion or comparative religion; the history of culture and of the arts; world history; national history; geography; economics; sociology; and sometimes political science. Students may concentrate on 2 or 3 of these subjects, for example, they may choose 2 or 3 languages, history and philosophy or some social science, although most cover a wider field.

In addition to the humanities and social sciences, students usually spend between a tenth and a fifth of their time on other subject areas - for example, on "general knowledge", science, and mathematics; the treatment being broad and stressing ideas rather than techniques.

Programmes are generally given in secondary schools or upper secondary schools. In some cases they may be given in universities as preparatory classes. Adults taking the programmes usually study in evening classes in schools or colleges or adult centres, or by correspondence. Broadcasts (television and radio) may be used to supplement other teaching methods.

A certificate or diploma is usually awarded by either the school or a public authority to those who complete the programmes successfully. This certificate or diploma may be required for admission to universities or colleges.

30108 General programmes with special emphasis on mathematics and natural or applied science

These are programmes alternative to 30101, which permit some concentration on mathematics or science, without neglecting other fields of knowledge. Students are generally between 15 and 19 years of age and have completed seven to nine years of schooling. Programmes, usually full-time, last two to four years. Admission to the programmes may be open to all who have completed a minimum number of years of schooling or only to those who succeed in a selective examination.

Programmes are usually organized under subject headings, but may be otherwise grouped, for example as "projects", as particular problems such as "science and society", or around centres of interest. The subjects offered usually include pure and applied mathematics, physics, chemistry, and biology. Astronomy, geology, human anatomy, and engineering may sometimes be available. Stress is usually laid on theory and on ideas, although industrial applications may be considered. Students may concentrate on two or three of the subjects - for example, mathematics, physics, and chemistry, or mathematics and biology - although most programmes cover a wider field.

In addition to the sciences and mathematics, students usually spend between one tenth and one fifth of their time on other subject areas - for example, on "general knowledge", history, or a foreign language.

Programmes are generally given in secondary schools or upper secondary schools. In some cases they may be given in universities as preparatory classes. Adults taking the programmes usually study in evening classes in schools, colleges, or adult centres, or by correspondence. Broadcasts (television and radio) may be used to supplement other teaching methods.

A certificate or diploma is usually awarded by either the school or a public authority to those who successfully complete the programmes. This certificate or diploma may be required for admission to universities or colleges.

30199 General programmes with special emphasis on other non-technical subjects

These programmes are alternatives to 30101, with special emphasis on subject areas not covered by 30104 or 30108. The areas of study may, for example, deal with life and culture in Asia, international problems, the ancient world, government or commerce and production. In all cases the area of study is non-technical, i.e. it is not directly connected to the production, distribution, and exchange of material goods or services. At least three quarters of the total study time is devoted to the special area, the remainder being devoted to studies covering other important areas and often labelled "general knowledge".

The descriptions given in 30101 to 30108 apply here, apart from the description of programme content.

314 Teacher training programmes

This field includes a variety of programmes in education at the second level, second stage, dealing with the principles and practice of school teaching and with the training of instructors, extension workers and personnel for out-of-school and adult education, both formal and non-formal. In programmes designed particularly to prepare students for teaching at the first level of education, considerable attention is paid to the techniques of teaching (teaching methods), including lesson planning and preparation, classroom management, methods for developing group activities, and the history of education. These programmes also devote typically equal time to furthering the student's general education.

Important kinds of programmes included are general teacher training programmes with no particular subject-matter specialization, or specialization in the type of student to be taught; teacher training with specialization in a specific vocational or practical subject, such as music, art, physical education, metal work, or commercial subjects; teacher training for pre-school and kindergarten teachers. Different kinds of programmes are designed for the training of teachers in adult education, i.e. the supervisors and instructors of adult education classes of a more formal kind and for extension and community development, health education of the public and other types of non-formal adult education.

Programmes may be followed full-time or part-time, but most of the programmes at this level are full-time and the students are still in the process of acquiring second level education. Some programmes, however, are attended mainly by adults (e.g. programmes for teachers of adult education, programmes for teachers of pre-school and kindergarten children), and these are often part-time and evening programmes. The full-time programmes last for one to three years, while the part-time are generally for one year or less.

Usual minimum educational prerequisite is completion of second level education, first stage, but mature students with related work experience may be admitted with lower educational qualifications, particularly in programmes for teachers of vocational subjects and for teachers of adult education.

Usual award for successful completion of a programme is a diploma or certificate issued by a college or school, or by a public authority.

31401 General teacher training programmes

Programmes that combine general education at the second level, second stage, with teacher training. Educational theory and subject specialization are stressed less than in teacher training courses at the third level of education.

The teacher training component of the programmes usually involves study of the methods and principles of teaching and class management; elementary child psychology; and the history of education. Programmes also include practice teaching and observation of lessons given by experienced teachers. General education at the second level, second stage, usually accounts for about one half of the total study time. It includes study of some or all of the following : the mother tongue and/or another current language and its literature; science; mathematics; social studies; art and music; manual training; dramatics; civic, moral, and sometimes religious education; and often a foreign language.

Programmes are usually given in special institutions such as normal schools or teacher training colleges.

Usual minimum educational prerequisite for admission is completion of education at the second level, first stage. Programmes, usually full-time, last from one to three years. When designed for adults, these programmes are usually accelerated and often last for one year.

Usual award for successful completion of a programme is a diploma or certificate issued by the college or school, or by a public authority.

31408 Teacher training with specialization in a specific vocational or practical subject

Programmes at the second level, second stage, designed to provide teacher training with specialization in subjects such as music, art, physical education, metal work, or commercial subjects. These programmes are intended principally for those who will teach or give instruction at the first level of education or at the second level, first stage, either in a formal school atmosphere or out of school. In many cases, the programmes are also designed to further the student's general education.

The teacher training component of the programmes usually involves study of teaching methodology and class discipline; special requirements for teaching the particular speciality for example the organization of a school workshop; techniques of teaching skills requiring tools and machines; methods of handling groups in gymnasium and sports activities, etc. Courses in child psychology, educational psychology, and the principles and history of education are often included. The programmes also include practice teaching and the observation of classroom, shop, and other instruction by experienced teachers or instructors. For young students, these programmes may continue and extend earlier school experience both in general education and in the special subject. Components of general education included are often directed toward a student's speciality: for example, physical education specialists may study human anatomy and general hygiene; music specialists may study appropriate branches of mathematics and acoustics, etc.

Programmes are usually given in special institutions such as normal schools or teacher training colleges, but may be held in community centres, vocational training centres, etc.

Usual minimum educational requirement for admission is completion of education at the second level, first stage. Programmes, usually full-time, last from one to three years. Programmes designed for adults, particularly those having work experience in the subject they intend to teach, are often accelerated in the sense that less time is devoted to general education, and therefore usually last one year or less.

Usual award for successful completion of a programme is a diploma or certificate issued by the college or school, or by a public authority.

31412 Teacher training for pre-school and kindergarten teachers

Programmes at the second level, second stage, designed to provide teacher training for prospective teachers in education preceding the first level. In most cases these programmes are also designed to further the student's general education.

The teacher training component of the programmes usually stresses study of child psychology and child development to assist the student in the understanding and guidance of pre-school and kindergarten children; study of the theory of play methods; and other group activities for young children. Courses in the history and aims of education are often included. Programmes also include practice in pre-school institutions under the supervision of experienced teachers. The general education component of these programmes usually includes study of the mother tongue and/or another current language; literature; history; mathematics; science; arts; music; and physical education.

Programmes are usually given in special institutions such as normal schools and teacher training colleges.

Usually the minimum educational requirement for admission is completion of education at the second level, first stage. Programmes, usually full-time, last from one to three years. Programmes designed for adults (often women whose children are of school age) are usually accelerated and therefore may last one year or less.

Usual award for successful completion of a programme is a diploma or certificate issued by the college or school, or by a public authority.

31416 Teacher training for teachers in adult education

Programmes at the second level, second stage, in teacher training for prospective supervisors, teachers and instructors of adult education classes including adult literacy, or for organizers, demonstrators, educators, etc., in extension or community development programmes. The programmes are sometimes designed also to further the student's general education.

The teacher training component of the programmes is usually oriented toward the requirements of field work and the practical problems encountered in adult education, including the principles and methods of adult education, programme planning, and subject-matter selection in adult education, and/or the organization, management and teaching of adult literacy classes. The programmes often include practice sessions and observation in adult education classes under the supervision of experienced teachers. The general education part of these programmes is not a major component, and it includes study of the mother tongue or another current language; literature; current events; social studies; and often art, music, manual training, and physical education.

Programmes are sometimes given in special institutions such as normal schools or teacher training colleges, in adult education centres, community centres, etc.

Usual minimum educational requirement for admission is completion of education at the second level, first stage. Many students in these programmes, however, are adults who may not have attended school for many years. Most should have completed education at the first level, and many should have some second level education. For these mature students, experience, interest and aptitude may be substituted for formal educational requirements as criteria for admission. Teachers and instructors in work-oriented functional literacy programmes may require qualifications or experience in vocational fields such as agriculture, home economics or a relevant sector of industry, enabling them to combine the teaching of literacy with vocational information. The duration of programmes varies, being up to two years for younger students, but for mature students, or those having essential basic qualifications, being shorter in some cases two or three months or less.

Usual award for successful completion of a programme is a diploma or certificate issued by the college or school, or by a public authority.

31422 Teacher training for teaching handicapped children

Programmes at the second level, second stage, in teacher training for prospective teachers of children affected by physical and/or mental handicaps. The programmes are usually designed also to further the student's general education.

The teacher training component of the programmes usually includes such subjects as teaching methodology, the history of education, lesson planning, class management, child psychology, and child development. In addition, special attention is directed toward the problems of teaching handicapped children such as the blind, the deaf, and the mentally retarded, and the history of teaching the handicapped. Some students specialize in teaching children with a particular handicap, and may learn special skills such as braille or finger language. The programmes also include practice teaching in schools for the handicapped and observation of experienced teachers. The general education part of these programmes includes study of the mother tongue or another current language; literature; history; mathematics; art; music; and physical education.

Programmes are usually given in special institutions such as normal schools or teacher training colleges, but for teaching handicapped children they may be given in hospitals or other institutions for the handicapped.

Usual minimum educational requirement for admission is completion of education at the second level, first stage.

Programmes, usually full-time, last from one to three years. When designed for adults, these programmes are usually accelerated and often last for one year.

Usual award for successful completion of a programme is a diploma or certificate issued by the college or school, or by a public authority.

31499 Other specialized teacher training programmes

Programmes at the second level, second stage, in teacher training for prospective teachers in specialities not included in the above definitions of programme groups. They would include, i.e. programmes for teacher training for prospective teachers in military schools, police schools, religious schools, etc. The programmes are usually designed also to further the student's general education.

The teacher training component of a programme is geared to the speciality area and would include the general courses listed under categories 31401 to 31422 and, in addition, special courses appropriate to the particular aims of the programme. Programmes of this kind also include practice teaching

and the observation of experienced teachers. The general education component is that appropriate to furthering a student's education at the second level, second stage.

Duration of programmes, usual minimum education requirements for admission, and usual award for successful completion are as described in the definitions of categories 31401 to 31422.

318 Fine and applied arts programmes

This field includes a variety of programmes in education at the second level, second stage, dealing with the techniques, performance and production in the fine and applied arts. At this level, the programmes contain little theory, but they aim at introducing students to an appreciation of art generally, and to some elementary theory, and they concentrate mainly on performance designed to lead the student to select his particular art form.

The principal kinds of programmes included are those concerned with drawing and painting, handicrafts, music, photography, etc. These programmes usually include courses in general academic subjects such as history, literature, languages, mathematics, and sciences when they form part of the general secondary school curriculum. Other programmes for students not enrolled in general secondary schools are more concentrated and specialized in the fine and applied arts.

Programmes may be full-time or part-time, day or evening. Many are of relatively short duration, i.e. one year. In some cases, periods of study alternate with periods of work of practice in the relevant subject. These programmes are sponsored by many agencies in addition to the general secondary school system, including community organizations, individual artists, and groups of artists.

Usual minimum educational prerequisite is completion of second level education, first stage. In many cases, however, particularly for programmes outside the general secondary school system, students applying for entry need only display an interest in the subject. Some programmes may require applicants to demonstrate some aptitude or skill in the chosen subject.

Usual award for successful completion is a certificate or diploma.

31804 Programmes in drawing and painting

Programmes at the second level, second stage, primarily consisting of student exercises supplemented with lectures, demonstrations and criticism, designed to provide the student with basic understanding and skills in the techniques of drawing and painting, mainly through the use of examples from the past and present. These programmes are usually designed to lead the student from a study of the most basic and fundamental skills, techniques and materials toward an encounter with more complex skills and techniques and a greater array of materials. The earlier stages of the programmes are usually characterized by instructor-directed activity, with the student gaining increasing freedom to direct his own activities as he moves through the programme.

The content of these programmes includes the study of the expressive qualities of line, shape, colour and texture, also perspective, composition, and the particular techniques peculiar to such media as pencil, charcoal, pen and ink; crayon, water-paints and oil-paints. In some programmes, particular courses may be organized around specific subject matter, e.g. figure drawing or painting, landscape drawing or painting, etc.

Usual minimum educational prerequisite is completion of second level education, first stage. In many cases, however, the student applying for entry to such a programme need only express an interest in the subject, but to proceed to more advanced levels within the programme he must usually demonstrate sufficient aptitude or skill at the introductory levels. The length of these programmes varies depending on the institution providing them. However, being often a part of a general fine arts programme, they are seldom longer than two years in duration.

Usual award for successful completion is a certificate or diploma.

31812 Programmes in handicrafts

Programmes at the second level, second stage, primarily consisting of demonstrations and student exercises, often supplemented with lectures, discussion, and criticism, designed to provide the student with basic understanding and skills in the design and production of handicraft products and an appreciation of their historical and cultural background. These programmes are usually designed to lead the student from the simple to the complex in techniques: in some of the crafts, this would mean from the making of objects that are completely hand crafted, through those utilizing simple tools, to those utilizing fairly complicated equipment. It is unlikely, however, that programmes at this level would include much complicated equipment.

The content of these programmes usually includes instruction in such skills as weaving, pottery, leather work, metal work (jewelry), wood carving, macramé (knot tying), origami (paper folding), bead work, etc. They often include an emphasis on the design and decoration appropriate to the specific craft, and something of the history of the techniques involved.

Usual minimum educational prerequisite is completion of second level education, first stage. In many cases, however, the applicant for admission to such a programme need only express an interest in the crafts. On the other hand, in areas where the skilled craftsman is respected, it is likely that a student wishing to pursue formal handicraft training must demonstrate some degree of aptitude before being allowed to enter such a programme.

31822 Programmes in music

Programmes at the second level of education, second stage, in musical performance and theory, primarily consisting of demonstrations, student exercises, and practice, often supplemented by lectures and concerts. These programmes are designed to provide students with a general appreciation of music in a wide range of forms.

These programmes usually include instruction in musical performance on a variety of instruments as well as in vocal expression (solo, small group, and choral). In addition, they often include study of the history and appreciation of music, harmony, musical notation, and a brief introduction to music theory and composition.

Usual minimum educational prerequisite is completion of second level education, first stage. At this level, however, these programmes are often open to students who express an interest in music, but to remain in a programme, a student is required to demonstrate sufficient aptitude and skill as the programme progresses. Auditions are often required for vocal programmes.

Programmes vary greatly in length, but most are from two to four years in duration.

Usual award for successful completion is a certificate or diploma.

31899 Other programmes in the fine and applied arts

Programmes at the second level, second stage, in fine and applied arts not included in the above programme groups (e.g. the dance), primarily consisting of student exercises and practice, supplemented with lectures and demonstrations. These programmes are usually general in nature, designed to provide the student with an understanding and appreciation of the visual and plastic arts and their history, as well as an opportunity to develop his ability to express himself in non-verbal forms. The personal expression portion of these programmes is usually designed to lead the student from experiences and insights in a wide variety of materials to a greater concentration of his time and efforts in certain selected materials. At the same time, the student acquires increasing skills and techniques in his chosen media.

The content of these programmes is very broad in terms of the artistic fields included. They usually involve some experience in and enquiry into many, if not most, of the media and processes involved in the visual arts. Also included are courses dealing with the history and appreciation of art.

Usual minimum educational prerequisite is completion of education at the second level, first stage. In many cases, an applicant need only express an interest in appropriate subjects; however, in order to proceed to more advanced levels within the programme, he must usually demonstrate sufficient aptitude or skill at the introductory levels.

The length of these programmes varies depending on the sponsoring institution. In general, however, they form part of a general fine arts programme lasting for at least two years.

Usual award for successful completion is a certificate or diploma.

326 Religion and theology programmes

Programmes which combine general education at the second level, second stage, with special courses in the religious and philosophical beliefs and doctrines of one of the world religions and/or of a particular denomination or sect within that religion. The aim of the courses is chiefly to develop in the students an interest in ideas as well as intellectual power rather than to teach specific skills of a professional kind. Students are generally between 15 and 19 years of age but may be older and have usually completed the first stage of the second level. Programmes, usually full-time, last two to four years but, particularly with adults, may be accelerated and intensive, and last only a few months.

Programmes usually include the study of the mother tongue and/or a current language and its literature; one or two classical languages such as Pali, Sanskrit, Greek, Hebrew, Latin; social studies, usually with reference to problems in modern society; philosophy. — The specialized part of the programmes concentrates on the metaphysics and doctrines of a religion as well as on its liturgy and ritual.

Programmes may be given in special sections of general secondary schools; in religious schools or seminaries; in monasteries, etc.

32600 Religion and theology programmes

Programmes which combine general education at the second level, second stage, with special courses in the religious and philosophical beliefs and doctrines of one of the world's religions and/or a particular denomination or sect within that religion. See general description 326. Programmes of this kind are found in many parts of the world, e.g. Bible colleges in the U.S.A., traditional schools in Muslim countries; Buddhist monasteries in Asia. They normally last at least two years, full-time, but with adults may last only a few months.

Principal course content consists of lectures, discussions and tutorials on subjects such as: detailed study of sacred books and texts; study of classical languages; textual analysis and criticism; church history; theology; history of worship and liturgy. The general education component may include study of the mother tongue and/or a current language; philosophy; logic; social problems. Normally, attention is paid to ritual, liturgy, and religious music.

Usual minimum educational prerequisite is the completion of second level education, first stage.

Usual award is a diploma awarded by the school or by a religious authority.

334 Commercial and business programmes

This field includes a number of programmes at the second level, second stage, that combine general education with instruction and practice in commercial, stenographic, and clerical subjects, including an understanding of general office routine. These programmes usually consist of about one half general education, the other half being devoted to a general commercial programme, a secretarial programme, or some other type of commercial speciality.

The principal course content depends on the student's speciality, but most programmes include commercial subjects such as typing and shorthand, bookkeeping, commercial law, business machine operation, commercial correspondence, and general office procedures such as filing, etc. The general education part of the programme includes mathematics, study of the mother tongue or another current language and its literature, history, geography, civics, and sometimes a foreign language, religious education, and physical education. Little emphasis is usually placed on natural sciences or social sciences, with the possible exception of an elementary course in economics.

Programmes are sponsored by a wide variety of schools, including ordinary secondary schools, special schools, special public secretarial schools, private secretarial schools, correspondence schools, employers such as governments and large private employers, business machine companies, etc. The programmes in the regular secondary schools are usually full-time and last from one to three years. Most of the other programmes have a duration of one year or less, and some of them - those that concentrate on one or two subjects - may have a duration of only a few weeks.

Usual minimum educational prerequisite is completion of second level education, first stage. For some short, intensive programmes, candidates with some second level education but who have not completed the first stage, may be admitted.

Usual award for successful completion of a programme is a certificate or diploma.

33401 General commercial programmes

Programmes that combine general education at the second level, second stage, with classroom study and practice in commercial, stenographic, and general office routines. These programmes are usually sufficiently advanced to qualify successful candidates for employment in office work.

Principal course content in commercial subjects usually includes typing and shorthand, bookkeeping, commercial law, business correspondence, filing, and office machine operation. The general education component, which occupies at least one half of the student's time, usually includes mathematics, history,

geography, the mother tongue, or another current language and its literature, and sometimes civics, a foreign language, religious education, and physical education.

These programmes are often given in general secondary schools or special secondary schools, in which case they are usually full-time and last for three years or more. Similar programmes provided in business or commercial colleges, either public or private, usually for adults or young people who have left school, tend to be more specialized with little time devoted to general education, and to last for one year or less.

Usual minimum educational prerequisite is completion of second level education, first stage. Admission to the more intensive programmes for adults and young people who have left school may be granted with somewhat lower educational qualifications to those having relevant experience and aptitude for office work.

Usual award for successful completion of a programme is a certificate or diploma.

33404 Secretarial programmes

Programmes that combine general education at the second level, second stage, with classroom study and practice in typing and shorthand along with some study of other commercial subjects. These programmes are sufficiently advanced to qualify successful candidates for employment as stenographers or secretaries.

Principal course content in commercial subjects is concentrated in typing, shorthand, business correspondence, and general office routine, with some attention to filing, bookkeeping, etc. The general education component, which occupies at least one half the time devoted to the programme, usually includes mathematics, history, geography, and the mother tongue or another current language and its literature, and sometimes a foreign language, religious education, and physical education.

When given in general secondary schools or special secondary schools, these programmes usually last for three years or more. Similar programmes given in business or commercial colleges, either public or private, usually for adults or young people who have left school, tend to be more specialized in commercial education and to have a duration of one year or less.

Usual minimum educational prerequisite is completion of second level education, first stage. In some cases, however, admission to the more specialized, shorter programmes may be granted with somewhat lower educational qualifications to those having relevant experience and aptitude for office work.

Usual award for successful completion of a programme is a certificate or diploma.

33408 Clerical-typist programmes

Programmes in education at the second level, second stage, primarily consisting of classroom study and practice in typing and general clerical procedures. Some of these programmes may include study of other commercial subjects, and of subjects from the general second level, second stage, school curriculum. In most cases, however, the programmes are specialized in terms of subject content.

Principal course content is usually concentrated in typing, business correspondence, filing, business machine operation, and other general clerical procedures. Some programmes may include shorthand, bookkeeping, commercial law, etc.

Programmes of this type are usually given in business or commercial schools, either public or private, and the majority are designed for adults or young people who have left school. In general, they are of relatively short duration, i.e. one year or less, although the less specialized programmes often last for more than one year.

Usual minimum educational prerequisite is completion of second level education, first stage, but some applicants with relevant experience and aptitude for office work may be admitted with somewhat lower educational qualifications.

Usual award for successful completion of a programme is a certificate or diploma.

33414 Programmes in the operation of office machines

Programmes in education at the second level, second stage, primarily consisting of classroom study and practice in the operation of office machines such as calculating machines, bookkeeping machines, duplicating machines, tape and card-punching machines, computer programming, etc. Some of these

programmes may include the study of other commercial subjects and of subjects from the general second level, second stage, school curriculum. Many of the programmes, however, are specialized in subject content.

Principal course content depends on the student's speciality but is usually concentrated in the operation of one or two types of office machines, in tape or card punching, or computer programming. Other subjects included in a programme tend to be chosen in accordance with the speciality - for example, computer programmers would study the various computer languages, elementary systems analysis, programme documentation, and programme library organization, etc. Programmes in business machine operation often include some study of the machine's functioning, including the ordinary care and maintenance of the machine. Some of these programmes contain other commercial subjects such as typing, bookkeeping, business correspondence, filing, and other general clerical procedures. General secondary education subjects, if included, would consist of literature, mathematics, history, geography, and perhaps a foreign language, religious education, and physical education.

Programmes of this type are usually given in business or commercial schools, either public or private, and the majority are designed for adults or young people who have left school. The programmes are generally of relatively short duration, i.e. one year or less, although the less specialized ones often last for more than a year.

Usual minimum educational prerequisite is completion of second level education, first stage, but applicants with relevant experience and aptitude for office work may be admitted with somewhat lower educational qualifications.

Usual award for successful completion of a programme is a certificate or diploma.

33499 Other commercial and business programmes

Programmes in education at the second level, second stage, primarily consisting of classroom study and practice in a commercial or business speciality not included in the above programme groups (i.e. 33401 to 33414), e.g. bookkeeping. Some of these programmes may include the study of other commercial subjects and of subjects from the general second level, second stage, school curriculum. Many of the programmes, however, are specialized in subject content.

Principal course content depends on the student's speciality, but is usually concentrated in subjects closely related to that speciality. For example, a programme in bookkeeping would feature general bookkeeping, preparation of financial statements and other statements required for business management, maintenance of effective records of purchases, sales, inventories, etc., commercial correspondence, and the operation of simple office machines

such as adding machines and calculating machines. Other commercial subjects may sometimes be included - for example, typing, filing, and other clerical procedures. General secondary education subjects, if included, would consist of literature, mathematics, history, geography, and perhaps a foreign language, religious education, and physical education.

Programmes of this type are usually given in business or commercial schools, either public or private, and the majority are designed for adults and for young people who have left school. The programmes are usually of relatively short duration, i.e. one year or less, but the less specialized ones often last for more than a year.

Usual minimum educational prerequisite is completion of second level education, first stage, but applicants with relevant experience and aptitude for office work may be admitted with somewhat lower educational qualifications.

Usual award for successful completion of a programme is a certificate or diploma.

350 Health-related auxiliary programmes

This field includes a variety of programmes at the second level, second stage, dealing with the principles and practices of medical diagnostic and treatment procedures and of general public health problems. The programmes are designed to prepare students for careers as general public health auxiliaries or administrative assistants in nursing, midwifery, and other medical auxiliaries, usually under the direction of qualified professionals. At this level the programmes are typically directed toward the application of technology in the relevant procedures rather than the theoretical and scientific principles involved.

Important subject matter included in these programmes consists of study of background subjects such as chemistry, microbiology, anatomy, hygiene, mathematics, and psychology, in addition to specialized subject matter of the particular speciality concerned. Many of these programmes also include part of the regular second level, second stage, curriculum.

Programmes may be either full-time or part-time, day or evening, and usually include practical demonstration and student participation in the relevant operations either in practice sessions or as employees. Programmes of this kind at this level are not found in all countries. They are usually conducted in hospitals, clinics, or special schools.

Usual minimum educational prerequisite is completion of second level education, first stage, but mature students, especially those with relevant work experience, may be admitted with lower educational qualifications.

Usual award for successful completion of a programme is a certificate or diploma.

35001 General medical auxiliary programmes

Programmes at the second level, second stage, primarily consisting of classroom instruction, discussion, and practical demonstration of general public health problems and the administrative procedures used in handling them. Included also is study of medical terminology and medical record-keeping practices.

Principal course content usually includes, i.a. the principles of public health, simple medical treatment procedures, including first aid; medical terminology; maintenance of medical records; health legislation; hygiene; and clinical administration. Background courses often provided are bookkeeping, sociology, psychology, typewriting, and general office procedures.

Usual minimum educational prerequisite is completion of second level education, first stage.

Usual award for successful completion is a certificate.

35011 Nursing programmes

Programmes at the second level, second stage, primarily consisting of hospital training and classroom instruction, dealing with the principles and practices of nursing, including dental nursing.

Principal course content usually includes some of the following : nursing theory; nursing practice; anatomy and physiology; nursing care in common diseases; hygiene, including dental hygiene; first aid; geriatrics; nursing care of children; care of mother and child; administering drugs and medicines; care of dental and medical instruments, etc.; nutrition; language and communications; basic sociology.

Usual minimum educational prerequisite is completion of second level education, first stage.

Usual award for successful completion is a certificate or diploma in nursing.

35021 Midwifery programmes

Programmes at the second level, second stage, primarily consisting of hospital training and classroom instruction, dealing with the pre- and post-natal care of the mother and child.

Principal course content usually includes some of the following : basic human anatomy and physiology; principles of obstetrics and gynaecology; midwifing practice; hygiene; care of mother and child; nursing care of children; administering drugs and medicines; nutrition; basic psychology; first aid; language and communication; basic sociology.

Usual minimum educational prerequisite is completion of second level education, first stage.

Usual award for successful completion is a certificate in midwifery.

35099 Other health-related auxiliary programmes

Programmes at the second level, second stage, primarily consisting of hospital training and classroom instruction dealing with the principles and practices of medical or dental technology in one of the many techniques required for medical diagnosis and treatment.

Principal course content usually includes some of the following : basic anatomy and physiology; laboratory safety; collection and handling of specimens; shipment of specimens; instrumentation (centrifuges, microscopes, photometers, ovens, baths, incubators, microtomes, dental instruments and equipment); sterilization and disinfection; laboratory glass and plastic ware; basic chemistry; clinical microbiology; blood banking; haematology; clinical chemistry; and histology.

Usual minimum educational prerequisite is completion of second level education, first stage.

Usual award for successful completion is a certificate in medical science technology.

362 Agricultural, forestry and fishery programmes

This field includes a number of programmes that combine education at the second level, second stage, with studies in agriculture, forestry and fishery. The programmes are not all designed to train farmers, foresters, or fishermen to operate enterprises; in many the purpose is to teach the production of food and of materials from growing things as a science, and to acquaint students with the place of agriculture, forestry, and fishery in human life, culture, and civilization.

The specialized part of these programmes usually takes up at least half the total study time, and includes periods of supervised practical work on farms, in forests and orchards, or on boats, involving training in the use of tools and machine maintenance. Management studies are often included, e.g. bookkeeping, the finance of enterprises, legal aspects, etc. The general education part of the programmes includes study of the mother tongue and/or another current language; mathematics; science; social studies; etc. Course subject matter may be vocationally oriented, e.g. science study may stress the ecological aspects of biology.

These programmes may be given in general secondary schools or in other institutions such as agricultural colleges, technical schools, farmers' training centres, extension institutes, etc. The programmes, usually full-time, last for two to four years.

Usual minimum educational prerequisite is completion of second level education, first stage. Admission to programmes for adults may be granted to applicants with lower educational qualifications who, through experience or otherwise, demonstrate ability to master the subject matter.

Usual award for successful completion of a programme is a certificate or diploma.

36201 General agricultural programmes

Programmes that combine general education at the second level, second stage, with classroom, laboratory, and workshop sessions designed to provide training in the production of food and materials from growing crops, and general farm work.

Principal course content usually includes, i.a. hay and pasture crops; grain and miscellaneous crops; livestock improvement, animal anatomy and physiology; soil science; crop management and weed control; animal feeds and production; commercial handling; farm management and record keeping. Practical work in school workshops includes the operation and maintenance of farm equipment. Time may be spent in actual work on farms or in agricultural enterprises. The general education component includes study of the mother tongue and/or another current language; mathematics; science; social studies; etc. Course subject matter may be vocationally oriented, e.g. science study may stress ecology, the laws of heredity, the manufacture of fertilizers, etc.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature applicants, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate issued by the school or institute.

36204 Animal husbandry programmes

Programmes that combine general education at the second level, second stage, with classroom, laboratory, and workshop sessions designed to provide basic training in the principles and practices of animal husbandry.

Principal course content usually includes, i.a. animal anatomy and physiology; soil science; the breeds of farm animals; livestock production and animal breeding; animal nutrition; animal pathology; diseases of farm animals; animal product processing. Practical work in school workshops includes the operation and maintenance of farm equipment. Time may be spent in actual work on farms or in agricultural enterprises. The general education component includes study of the mother tongue and/or another current language; mathematics; science; social studies, etc. Course subject matter may be vocationally oriented, e.g. science study may stress ecology, the laws of heredity, the manufacture of fertilizers, etc.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate issued by the school or institute.

36208 Crop husbandry programmes

Programmes that combine general education at the second level, second stage, with classroom, laboratory, and field work sessions designed to provide basic training in the principles and practices of crop husbandry.

Principal course content usually includes, i.a. soil science; agricultural mechanics; pest control; plant preparation; plant pathology; greenhouse crop production; vegetable and fruit production; forage crops; grain crops; cropping systems; and farm management. Practical work on the operation and maintenance of farm equipment is often provided in school workshops. The general education component includes study of the mother tongue and/or another current language; mathematics; science; social studies, etc. Course subject matter may be vocationally oriented, e.g. science study may stress ecology, the laws of heredity, the manufacture of fertilizers, etc.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate issued by the school or institute.

36231 General forestry programmes

Programmes that combine general education at the second level, second stage, with classroom, laboratory, and field work sessions designed to provide basic training in the principles and practices of forestry.

Principal course content usually includes, i.a. general forestry; wood technology; scaling; logging; milling; lumber grading; silviculture; forest improvement; woodlot management; bookkeeping and business writing. Practical work on the operation and maintenance of equipment is often done in school workshops. The general education component includes study of the mother

tongue and/or another current language; mathematics; science; social studies, etc. Course subject matter may be vocationally oriented, e.g. science courses may stress ecology, the food of plants, the classification of trees, etc. Field sessions may include actual work in woods and forests.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate issued by the school or institute.

36251 General fishery programmes

Programmes that combine general education at the second level, second stage, with classroom, laboratory, and field work sessions designed to provide basic training in the principles and practices of fishing and the fishing industries.

Principal course content usually includes, i.a. oceanography; marine biology; the classification of fish and other sea food; fish detection and handling; fish processing; deep-sea fishing and in-shore fishing; simple seamanship and navigation. Practical work on the operation and maintenance of boats and gear is often provided in school workshops. The general education component includes study of the mother tongue and/or another current language; mathematics; science; social studies, etc. Course subject matter may be vocationally oriented, e.g. science courses may emphasize marine pollution and ecology; the food of fishes; the reproduction of fish and other sea animals and plants. Time may be spent working aboard boats and ships.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate issued by the school or institute.

36299 Other agricultural, forestry, and fishery programmes

Programmes at the second level, second stage, in agriculture, forestry and fishery not included in the foregoing programme groups (i.e. 36201 through 36251), primarily consisting of classroom, laboratory, workshop, and field sessions.

These programmes may lay specific stress on some aspect of agriculture, forestry, or fishery not covered above, such as agricultural marketing and co-operatives; hydroponic farming; the culture, harvesting and treatment of seaweed; the culture and harvesting of oysters and pearls; etc. The special programmes are often combined with general education at the second level, second stage. Their aim is not always to train technicians, but in many cases to show that the production of food and materials from growing things is a science, and to acquaint students with the rôle that such production plays in human life, culture and civilization.

Principal course content depends on the special technology of the area selected and its scientific background. There is usually practical work included on the operation as well as instruction in the maintenance of gear and equipment. Time is usually spent working in an appropriate enterprise.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate issued by the school or institute.

366 Home economics (domestic science) programmes

This field includes a number of programmes that combine education at the second level, second stage, with studies in domestic science, including domestic cooking and food preservation; sewing; dressmaking, etc., and general household arts.

These programmes usually consist of at least one half the study time devoted to general education at this level, the rest being either general domestic science training, domestic science with emphasis on cooking and nutrition, domestic science with emphasis on child care, or other specialities in domestic science, including dressmaking, clothing design, pattern making, or other domestic sewing, household decoration, furniture selection, family budgeting, etc. The general education part of the programme is broadly based to provide a background for the wide range of subject matter required in domestic science. Programmes therefore usually include a range of natural sciences such as chemistry and biology; social sciences such as elementary economics and social studies; literature, languages, mathematics,

and often physical education.

Programmes of this type, when given in a special stream of the regular secondary school curriculum, are not intended to provide complete vocational education, but are designed to give the student a sufficient background in general education and domestic science so that he can proceed to further vocational education or to on-the-job training. Some of these programmes are preparatory to third level education, especially in domestic science.

These programmes may be given in general secondary schools or in other institutions such as community centres, co-operative societies, etc. Programmes given outside the general secondary school curriculum are often of short duration (a few months) and more highly specialized in subject matter.

Usual minimum educational prerequisite is completion of second level education, first stage. Admission to some programmes designed for adults may be granted with lower qualifications to those who, through experience or otherwise, can demonstrate ability to master the subject matter.

Usual award for successful completion of a programme is a certificate or diploma.

36601 General home economics programmes

Programmes that combine general education at the second level, second stage, with classroom, laboratory, and workshop sessions designed to provide training in running a home, caring for a family, operating a small restaurant or bakery, etc. The special education component may consume as much as half the total learning time.

Principal course content usually includes, i.e., cooking, nutrition, sewing, home furnishings, child care, laundering, budgeting, home safety and hygiene. Emphasis is placed on the acquisition of skills. The general education component usually includes mathematics, physical and biological science, and study of the mother tongue and/or of a current language. Little stress is laid on the humanities, literature, or history.

Programmes are typically given in secondary comprehensive schools or in technical or vocational schools, or institutes.

Usual minimum educational prerequisite is completion of second level education, first stage. However, mature applicants with lower educational qualifications but having relevant work experience may be admitted to short programmes and courses designed to improve skills.

Usual award for successful completion of a programme is a certificate issued by the school or institute.

36612 Programmes with emphasis on nutrition

Programmes that combine general education at the second level, second stage, with classroom, laboratory and workshop sessions designed to provide basic training in the science and practice of nutrition, largely at the smaller institutional level. The special component may consume one third of the total learning time, and visits may be included to hospitals, factory canteens, schools, etc.

Principal course content usually includes cooking and baking; the preparation and serving of food; food purchasing; food storage; basic nutrition; nutrition for children and expectant mothers, etc. The general education component usually includes mathematics, physical and biological science, social science, and study of the mother tongue and/or another current language. Programmes are typically given in secondary comprehensive schools or in technical or vocational schools.

Usual minimum educational prerequisite is completion of second level education, first stage. However, mature applicants with lower educational qualifications but who have relevant work experience may be admitted to short programmes and courses designed to improve skills.

Usual award for successful completion of a programme is a certificate issued by the school.

36622 Programmes with emphasis on child care

Programmes that combine general education at the second level, second stage, with classroom, laboratory and workshop experience designed to provide basic training in the care of infants and young children. The special component may consume as much as one half of the total learning time. Programmes may include visits and brief working periods in nursery schools, crèches, and kindergartens.

Principal course content usually includes child development, child guidance, child care, nutrition, hygiene, and creative arts and crafts. The general education component usually includes mathematics, physical and biological science, and study of the mother tongue and/or another current language. Little stress is laid on the humanities, literature or history. Programmes are typically given in a secondary comprehensive school or a technical or vocational school.

Usual minimum educational prerequisite is completion of second level education, first stage. However, mature applicants with lower educational qualifications who have relevant work experience may be admitted to short programmes and courses, especially those designed to improve skills.

Usual award for successful completion of a programme is a certificate issued by the school.

36699 Other home economics programmes

Programmes at the second level, second stage, in home economics not included in the above programme groups (i.e. 36601 to 36622), primarily consisting of classroom, laboratory and workshop sessions possibly supplemented by lectures and demonstrations in various aspects of domestic science.

These programmes may lay specific stress on some aspect of home economics not covered by the foregoing programmes, or may combine the courses in some unusual way. For example, the emphasis in a nutrition programme might be on the presentation of meals (as in Japan), while another programme might emphasize family life, etc. Principal course content usually includes child care and development; housekeeping and household skills; family budgeting; home safety; and hygiene. The general education component usually includes mathematics, physical and biological science, and study of the mother tongue and/or another current language, with but little stress on the humanities, literature or history. Programmes are typically given in a secondary comprehensive school or a technical or vocational school.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature applicants with lower educational qualifications but who have relevant work experience are often admitted to short programmes, especially those designed to improve skills.

Usual award for successful completion of a programme is a certificate.

370 Transport and communications programmes

This field includes a variety of programmes at the second level, second stage, which combine general education with instruction and workshop experience in technical or vocational subjects related to transport and communications operations. These programmes are designed to provide a general education having vocational emphasis relevant to a range of specialized, more advanced, vocational programmes or for on-the-job training, (e.g. apprenticeship). Although these programmes are specialized in terms of vocational content, they are not intended as training for a specific occupation, but designed to impart general information and experience in workshop methods and practices that prepare the student for further vocational education, either in school or on the job.

The general education component of these programmes includes some of the regular school curriculum at this level, with less emphasis on the humanities, foreign languages, and social sciences. They usually stress mathematics, natural sciences, the mother tongue and/or a current language and its literature, as well as subjects such as engineering drawing, blueprint reading, elementary engineering, and a range of practical subjects depending on the student's speciality.

37004 Ships' officer programmes

Programmes that combine general education at the second level, second stage, with instruction and ship experience for the preparation of practicing officers and seamen to work as Master Home Trade, Master Ferry Steamship, Master Small Craft, Master Small Passenger Ship, Fishing Master, Tug Master, etc.

Principal course content usually includes some of the following : navigation; chartwork; ship construction; stability; shipmaster's business; magnetic and gyro compass; electronic and other aids to navigation; rule of the road; signals; meteorology; cargo work and maintenance; pilotage; radar observation; marine law.

The general education component usually includes mathematics; natural sciences; the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

37006 Railway operating trades programmes

Programmes that combine general education at the second level, second stage, with classroom instruction and on-the-job experience to provide training for railway operating personnel.

Principal course content varies with the specific trade but usually includes diesel mechanics; dynamics; communications; signals; physics; mathematics; and electronics.

The general education component usually includes mathematics; natural science; the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, a certificate of satisfactory completion is usually given by the sponsoring agency.

37008 Road motor vehicle operation programmes

Programmes that combine general education at the second level, second stage, with classroom instruction and on-the-job experience to provide training in road motor vehicle operation. The main emphasis is on the practical skills and knowledge required for road motor vehicle operators.

Principal course content varies with the specific trade but usually includes such subjects as highway regulations, safety rules, basic vehicle maintenance, simple repairs, vehicle control, vehicle insurance, highway conditions, etc.

The general education component usually includes mathematics, natural sciences, the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

37022 Programmes on installation and maintenance of communications equipment

Programmes that combine general education at the second level, second stage, with classroom instruction and on-the-job training in the installation and maintenance of communications equipment. The main emphasis is on practical skills and knowledge.

Principal course content varies with the specific trade but usually includes such subjects as electrical fundamentals; basic electronics; power measurements; electrical circuit analysis; electro-mechanical devices; electrical installation planning; power system analysis; electronic assembly methods; communication systems; control systems; switching methods, etc.

The general education component usually includes mathematics, natural sciences, the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

37026 Postal service programmes

Programmes that combine general education at the second level, second stage, with instruction and on-the-job training in post office operations. The main emphasis is on practical skills and knowledge.

Principal course content varies with the specific trade but usually includes such subjects as basic management, accounting, sorting, public relations, business management, communication, etc.

The general education component usually includes mathematics, natural sciences, the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, usually sponsored by the employer, a certificate of satisfactory completion is usually given by the sponsoring agency.

37029 Other communications programmes

Programmes that combine general education at the second level, second stage, with classroom instruction and on-the-job training in communications trades other than those defined elsewhere in 370. Although some consideration is given to the theoretical aspects of communications technology, the main emphasis of the programmes will be on basic practical skills and knowledge.

Principal course content usually includes the study of the various aspects of a particular trade with special emphasis on such subjects as communication systems; control systems; and public relations.

The general educational component usually includes mathematics, natural sciences, the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

374 Trade, craft and industrial programmes, n.e.c.

This field includes a variety of programmes at the second level, second stage, which combine general education with instruction and workshop experience in technical or vocational subjects. These programmes are designed to provide a general education having vocational emphasis suitable as preparation for a range of specialized, more advanced, vocational programmes or for on-the-job training (e.g. apprenticeship). Although these programmes are specialized in terms of vocational content, they are not intended as training for a specific occupation, but are designed to impart general information and experience in workshop methods and practices that prepare the student for further vocational education, either in school or on the job.

The principal subject-matter content of these programmes includes much of the regular school curriculum at this level, with somewhat less emphasis on the humanities, foreign languages, and social sciences. Thus they stress mathematics, natural sciences, the mother tongue and/or a current language and its literature, as well as general subjects such as engineering drawing, blueprint reading, elementary engineering, and a range of practical subjects

depending on the student's speciality.

Usual minimum educational prerequisite is completion of second level education, first stage. For programmes outside of the regular secondary school system, candidates with lower educational qualifications but having relevant work experience may be admitted.

Usual award for successful completion of a programme is a certificate or diploma.

37401 General programmes with a trade, craft, or industrial emphasis

Programmes that combine general education at the second level, second stage; with instruction and workshop experience, providing a general education suitable as preparation for a range of specialized, more advanced, vocational programmes or for on-the-job training (including apprenticeship).

Principal course content usually includes some basic instruction and shop practice in such subjects as machine shop practice; welding; sheet metal and internal combustion engine repair and maintenance; carpentry; plumbing; electrical work; electronics equipment repair and servicing; drafting, blueprint reading; engineering drawing. The importance of practical skills is emphasized. The general education component usually includes mathematics; natural sciences; the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

37404 Metal trades programmes

Programmes that combine general education at the second level, second stage, with instruction and workshop experience providing a general education suitable as preparation for more advanced vocational programmes, on-the-job training, or apprenticeship in metal trades such as machine shop, welding, sheet metal work, foundry work, and others. The pre-vocational component may take up to half the time allotted to the programme.

Principal course content varies with the specific trade but usually includes, i.a. bench work; the use of machine tools; welding (oxy-acetylene, electric arc MIG, TIG); strength of metals; blueprint reading; pattern making; casting; and occupational hazards and safety. The importance of practical skills is emphasized.

The general education component usually includes mathematics; physical science; the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, and social sciences.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

37408 Woodworking trades programmes

Programmes that combine general education at the second level, second stage, with instruction and workshop experience providing a general education preparatory to more advanced vocational programmes, on-the-job training, or apprenticeship in woodworking trades, including, i.a. sawmill technician.

Principal course content, in line with a student's speciality, usually includes some of the following : the study of fundamental principles of shop practice; kiln drying; traffic management; sawmill repairs; cabinet making; stock billing; method of layout; types, grades and measurement of wood; adhesives; standards of construction; layout of windows, sashes, doors and stairs; building layout; concrete forms; wall and floor framing and sheathing; blueprint reading; and safety. The importance

of practical skills is emphasized.

The general education component usually includes mathematics; physical science; the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign language, history, and social sciences.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

37412 Electrical and electronics trades programmes

Programmes that combine general education at the second level, second stage, with instruction and workshop experience providing a general education suitable as preparation for more advanced vocational programmes, for on-the-job training, or apprenticeship in electrical and electronics trades. The pre-vocational component may take up to half the time allotted to the programme.

Principal course content varies with the specific trades but usually includes, i.a. bench work; electrical and electronics theory and practices; armature winding for motors and generators; test equipment; testing circuits and components; diagnosis of faults; theory and operation of radio and television equipment; repair and maintenance of stereo high fidelity equipment; navigational aids; repair and adjustment of electronic devices; and work hazards and safety. The importance of practical skills is emphasized.

The general education component usually includes mathematics; natural sciences; the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

37416 Building trades programmes, n.e.c.

Programmes that combine general education at the second level, second stage, with instruction and workshop experience providing a general education suitable as preparation for specialized, more advanced, vocational programmes, on-the-job training, or apprenticeship in construction trades such as carpentry, plumbing, electrical work, brick and tile laying, heating and ventilating. The pre-vocational component may take up to half the time allotted to the programme.

Principal course content varies with the specific trade but usually includes, i.e., the principles and practices of construction and installation; building codes; blueprint reading; the use of machine tools and hand tools; occupational hazards and safety. The importance of practical skills is emphasized.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to other programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

37422 Programmes for mechanics

Programmes that combine general education at the second level, second stage, with instruction and workshop experience providing a general education suitable as preparation for specialized, more advanced, vocational programmes, on-the-job training, or apprenticeship in the mechanics trades of motor vehicle repair, heavy duty construction equipment repair, machinery repair, etc. The pre-vocational component may take up to half the time allotted to the programme.

Principal course content varies with the specific trade but usually includes, i.a. bench work; mechanics of solids, liquids, gases; internal combustion engine repair and maintenance; pneumatics; hydraulics; test equipment; welding; machine shop practice; and painting on metal. The importance of practical skills is emphasized.

The general education component usually includes mathematics; natural sciences; the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

37428 Graphic arts programmes

Programmes that combine general education at the second level, second stage, with instruction and workshop (laboratory) experience, providing a general education suitable as preparation for specialized, more advanced, vocational programmes or for on-the-job training, in the printing trades and photography. The pre-vocational component may take up to half the time allotted to the programmes.

Principal course content usually includes some of the following : printing processes; letterpress; lithography; rotogravure; typography; photoengraving; types of paper and uses; printing equipment; bindery process; layout makeup; methods of colour reproduction; photography, both

still and cinematographic. The importance of practical skills is emphasized.

The general education component usually includes mathematics; natural sciences; the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

37432 Leather and textile trades programmes

Programmes that combine general education at the second level, second stage, with instruction and workshop experience providing a general education preparatory to more advanced vocational programmes, on-the-job training or apprenticeship in leather and textile trades.

Principal course content usually includes some of the following : fibre processing; knitting; weaving and design; chemistry and dyeing; textile testing; man-made fibres; simple pattern making; techniques of cutting, sewing and other stitching; riveting; gluing and other methods of fastening materials; and leather tooling. The importance of practical skills is emphasized.

The general education component usually includes mathematics; physical science; the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, and social sciences.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion

is usually given by the sponsoring agency.

37436 Food and drink processing trades programmes

Programmes that combine general education at the second level, second stage, with instruction and workshop experience in food and drink processing trades, such as baking; confectionery making; slaughtering and meat cutting; fish curing, canning, and preserving; fruit and vegetable canning and preserving, milk processing; sugar processing; and beverage processing.

Principal course content varies with the student's specific trade but usually includes, i.a. general shop work to familiarize students with shop-work routines, along with study of the particular materials used in the speciality, their properties, uses, and the processes required for their transportation, handling, and processing; storage and refrigeration of food and drink; personal hygiene and sanitation; pricing; business management; and public relations.

The general education component usually includes mathematics; physical science; the mother tongue and/or a current language and its literature; with little stress on the humanities, foreign languages, history, and social sciences.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with related work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

37442 Programmes in service trades

Programmes that combine general education at the second level, second stage, with instruction and practice in service trades such as, for example, barbering and beauty culture; waiter-waitress training; retailing; and tourism trades.

Principal course content varies with the specific trade. Programmes in barbering and beauty culture usually include care of the hair, face, and scalp; cutting and styling of hair; shampooing; shaping and colouring of eyebrows and eyelashes. Programmes in waiter-waitress training usually include fundamentals of good table service; menu terminology; table setting; principles of hygiene. Other service trades programmes may deal with display of merchandise; cafeteria operation; commercial cooking and baking; kitchen management and sanitation; hotel and similar housekeeping service; advertising and promotion (including tourist development); and personnel administration.

The general education component usually includes simple science; the mother tongue and/or a current language; sometimes a foreign language. Usually there is little stress on the humanities, history, or social science.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually issued by the sponsoring agency.

37451 Laboratory assistant programmes

Programmes that combine general education at the second level, second stage, with instruction and practical experience in the principles and practices of service in laboratories.

Principal course content usually includes some of the following : basic sciences; basic electronics; laboratory safety; collection, handling, preservation, disposal and shipment of specimens; instrumentation (ovens, centrifuge, microscope, photometry, baths and incubators); sterilization and disinfection; measurement and reagents; and laboratory glass and plastic ware.

The general education component usually includes mathematics; the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, and social sciences.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

37499 Other trade, craft, and industrial programmes, n.e.c.

Programmes that combine general education at the second level, second stage, with instruction and workshop experience providing a general education suitable as preparation for a range of specialized, more advanced, vocational programmes or for on-the-job training (including apprenticeship). This group of programmes covers specialities not included in the above group definitions (i.e. 37401 to 37451), examples of the specialities being surveying, civil engineering technology, topography, geology, training of technicians for mines and quarries, plastics technology, chemical industry technology, agricultural engineering technology.

Principal course content for these programmes includes instruction and shop practice in subjects related to the student's speciality and general vocational subjects such as the use of hand- and machine-tools, workshop practice, blueprint reading, work hazards and safety precautions. In addition, much of the general education curriculum at this level is included with emphasis on mathematics, natural sciences, the mother tongue and/or a current language and its literature, but with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

380 Special programmes for the handicapped

Programmes at the second level, second stage, primarily designed for those who, because of physical disability, cannot undertake the regular programme in education at this level. Included are the deaf, the blind, the motor handicapped, or those otherwise physically disabled.

Programmes generally include the courses offered in the regular second level, second stage, curriculum, but methods of presentation and the physical plant may vary, much of the instruction for the deaf, for example, being presented through finger spelling and sign language in classrooms equipped with special amplification systems. Handicapped students thus receive a complete second level education, often within the normal time span, despite the fact they would have considerable difficulty in a programme designed for non-handicapped persons. Those unable to master all the second level subjects are often enrolled in vocational programmes suited to their particular handicap.

Programmes which usually take from three to five years, may be provided in regular secondary schools, in special schools for the handicapped, or in institutions of various kinds. Part-time and short-time programmes are also common.

Usual minimum educational prerequisite is completion of education at the second level, first stage.

Usual award for successful completion is a certificate or diploma.

38000 Special programmes for the handicapped, general education

Programmes at the second level, second stage, primarily designed to accommodate those who, because of a physical disability, cannot undertake the regular programmes in education at this level. Students in these programmes have no intellectual limitation but may be handicapped by blindness, deafness, motor handicap, or other disability.

Programmes generally include the subject matter of the general programme in education at the second level, second stage, but the methods of presentation and the physical plant may vary. Much of the instruction for the deaf, for example, may be presented through finger spelling and sign language, in classrooms equipped with special amplification systems. A programme for a deaf and blind student requires individual instruction and the utilization of tactual-kinesthetic presentation of material. Some remedial instruction may also be included.

Programmes, which usually take from three to five years, may be provided in regular secondary schools, in special schools for the handicapped, or in institutions of various kinds. Part-time and short-time programmes are also common.

Usual minimum educational prerequisite is completion of education at the second level, first stage.

Usual award for successful completion is a certificate or diploma.

399 Other programmes of education at the second level : second stage

Programmes of education at the second level, second stage, not included in the above fields (i.e. 301 to 380). Some examples of programmes that might be included if encountered at this level are those in a civil security such as police work or fire protection; documentation methods and techniques; mass communication methods; social work; physical education. These are offered merely as illustrations.

Principal course content depends upon the speciality but usually includes, in addition to the student's principal interest, some study of general subject-matter at this level, e.g. basic natural science, mathematics, social science, humanities. Programmes for adults are likely to be more highly specialized and may omit the general education content.

Usual minimum educational prerequisite is completion of second level education, first stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications; particularly to short programmes and courses.

Usual award for successful completion of a programme is a certificate.

**5. EDUCATION AT THE THIRD LEVEL : FIRST STAGE,
OF THE TYPE THAT LEADS TO AN AWARD NOT EQUI-
VALENT TO A FIRST UNIVERSITY DEGREE**

The "core" at this level consists of education for those who have completed requisite programmes at the second level, second stage, and who continue their education in a type of programme that is generally not provided in a university. Typically in these programmes less time and attention are paid to the theoretical, general, scientific principles of the subjects studied, attention being concentrated more toward application in particular vocations. Thus programmes here are typically shorter in duration than the corresponding university type, i.e. characteristically shorter than four years. A programme's type (e.g. university or non-university type) is not determined by the kind of institution that provides it. Thus, quite apart from their "degree" programmes, many universities provide extension programmes or general-interest programmes which would be classified here or in level 9. Conversely, non-university programmes (e.g. junior college or community college in the U.S. or programmes given in secondary schools in some countries beyond the level for university entrance) that are recognized as the equivalent of the first year or first two years of the university programme when a student transfers to the university, would be classified at level 6 although other programmes of junior colleges, etc. would be included here at level 5. The important criterion is the "level" of the education provided in terms of educational preparation required for entry to a programme.

The "core" programmes at this level tend to parallel those of the universities in terms of subject-matter categories, but are usually shorter and more "practical" in orientation. Programmes of equivalent level to be associated with this "core" are of very great variety in most countries and are provided through many organizations of very different types. The programmes are typically specialized in subject-matter; many are part-time; evening courses are common. Refresher courses and general-interest courses are important segments of this level of education.

The sponsoring organizations are too numerous to list, but a selection will indicate their nature. They include business concerns, associations of employers (e.g. bankers' associations), labour organizations, the armed forces, professional associations, co-operative societies, religious bodies, local boards of education, universities (non-degree programmes), private schools, hospitals and other institutions.

The unifying criterion for all these programmes is the prerequisite that enrollees have completed the second stage of second level education or have at least some education at that level plus appropriate vocational experience to indicate ability to handle the subject matter. In other words, the subject matter is such that its mastery requires the equivalent of full second level education.

The range of subjects is very wide, as indicated by the detailed categories in ISCED. To avoid a long listing, it is sufficient to point out that the level of instruction is aimed at developing highly skilled technicians, teachers, artists, office staff, transport personnel, production supervisors, journalists, police and fire protection staff, and the like.

514 Teacher training programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and practice of school teaching, as well as the training of instructors, extension workers and personnel for out-of-school and adult education, both formal and non-formal.

The programmes designed particularly to prepare students for teaching in the regular school system at the first level and at the first stage of the second level of education, stress the techniques of teaching (teaching methods), including lesson planning and preparation, classroom management, methods for developing group activities, organization and administration of the school system, along with sessions of practice teaching and observation of experienced teachers, with relatively little time spent on the history and philosophy of education (education theory). Courses in the technology of education, including programmed learning, are often included.

Programmes for the training of instructors, extension workers and others to be engaged in out-of-school activities place more emphasis on knowledge of the basic subject matter to be taught as well as special techniques required such as organization and guidance of discussion groups, demonstration, communication and the use of audio-visual media, radio forums, village development committees, young farmers' clubs, etc.

Important kinds of programmes included are : general teacher training with no particular emphasis on the subject matter or type of student to be taught; those emphasizing particular subject matters to be taught such as science, mathematics, social studies and physical education; those emphasizing particular vocational subjects to be taught including fine arts (music, drawing, etc.), metal trades, woodworking, mechanical repair trades, printing trades, etc.; those emphasizing the techniques for teaching pre-school-age children; those concerned particularly with teaching in adult education, both in school and out of school; and those concerned particularly with teaching handicapped children. In most programmes some time is spent on general academic subjects such as mathematics, history, philosophy, psychology, geography and social studies.

Programmes may be followed full-time or part-time, day or evening, and many are given during school vacations (particularly programmes designed to improve the qualifications of employed teachers). Refresher courses are common.

Usual minimum educational prerequisite is completion of second level education, second stage, but mature students with valuable related work experience may be admitted with lower educational qualifications, particularly to programmes for teachers of vocational subjects and for teachers of adult education.

Usual award for successful completion of a programme is a teaching certificate approved by an educational authority.

51401 General teacher training programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of lectures and practice teaching, designed to train school teachers chiefly for the first level or the first stage of the second level of education. Various facets of the rôle of the classroom teacher are studied, with emphasis on teaching practice rather than on the theory of education.

Principal course content usually includes the philosophy, history, psychology, and sociology of education; teaching methods, both general and specific; lesson planning; audio-visual aids; school administration; and some general academic subjects such as mathematics, history, languages and science. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with related work experience may be admitted with lower educational qualifications. In short programmes, especially those designed to improve the qualifications of those already employed, work experience is usually given greater weight than educational qualifications. Programmes are usually full-time, and last from one to three years; they are given in a teachers' college, normal school, community college or university.

Usual award for successful completion is a certificate or diploma.

51404 Teacher training programmes with specialization in a non-vocational subject

Programmes at the third level: first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of lectures and practical activities designed to train teachers of non-vocational subjects (such as mathematics, social studies, languages, physical education, etc.) to teach at the first level or at the first stage of the second level of education. Various facets of the rôle of the classroom teacher are studied, with emphasis on teaching practice rather than on the theory of education.

Principal course content usually includes the history, philosophy, psychology, and sociology of education; teaching methods; lesson planning; audio-visual aids; school administration; courses in the subject to be taught; and often some courses in general academic subjects. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with related work experience may be admitted with lower educational qualifications. For short or emergency programmes, especially those designed to improve the qualifications of teachers, experience is often given greater weight than educational qualifications.

Programmes are generally full-time and last from one to three years; they are given in a teachers' college, normal school, community college or university.

Usual award for successful completion is a certificate or diploma.

51408 Teacher training programmes for teachers of vocational subjects

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of lectures and practice teaching designed to train teachers of specific vocational subjects (including *i.a.* music, art, industrial arts) primarily to teach at the first stage of the second level of education, either in a formal school atmosphere or out of school. Various facets of the rôle of the classroom teacher and the out-of-school instructor are studied, with emphasis on teaching practice rather than on the theory of education.

Principal course content for those intending to teach school usually includes the history, philosophy, psychology, and sociology of education; teaching methods; lesson planning; audio-visual aids; school administration; and courses in various aspects of the subject to be taught. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Programmes for training of instructors for out-of-school activities place more emphasis upon the subject matter to be taught and techniques such as demonstration, the use of audio-visual aids, problems of communication with adolescent and adult learners, etc.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with related work experience may be admitted with lower educational qualifications. For short or emergency programmes, especially those designed to qualify as an instructor in out-of-

school activities, experience is often given greater weight than educational qualifications. Programmes for school teachers are generally full-time and last one or two years in a teachers' college, community college, or special vocational school; those for out-of-school instructors tend to be shorter - from a few weeks up to a year and often part-time.

Usual award for successful completion is a certificate or diploma.

51412 Teacher training programmes for pre-school and kindergarten teachers

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of lectures and practice teaching designed to train students to teach pre-school or kindergarten classes. Various facets of the rôle of the pre-school teacher are studied, with emphasis on teaching practice rather than on the theory of education.

Principal course content usually includes the philosophy, history, psychology, and sociology of education; courses specifically related to the teaching and directing of children at pre-school and kindergarten ages; audio-visual aids; school administration; and sometimes general academic subjects. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with related work experience may be admitted with lower educational qualifications. For short or emergency programmes, especially those designed to improve the qualifications of teachers, work experience is usually given greater weight than educational qualifications. Programmes are generally full-time and last from one to three years in a teachers' college, normal school, or community college.

Usual award for successful completion is a certificate or diploma.

51416 Teacher training programmes for teachers in adult education, n.e.c.

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of lectures and practice teaching designed to train students as teachers or instructors in adult education, including adult literacy and extension and other types of adult out-of-school education. Emphasis is placed on practice teaching and on the practical aspects of adult education rather than on the theory of education.

Principal course content is geared to the problems of the adults to be educated, but usually includes the history, philosophy, psychology, and sociology of education; specific courses related to problems of the teaching and retraining of adults; relevant vocational or academic subjects; lesson planning; audio-visual aids; and school administration. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

For staff of extension and other types of non-formal education, emphasis is given to sociology related to development, adult and adolescent psychology, learning theory and the study of attitude change, methods of demonstration and the practical use of communication methods and media.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with related work experience are often admitted with lower educational qualifications. For short programmes, especially those designed to improve the qualifications of teachers or for out-of-school instructors, related work experience is usually given greater weight than educational qualifications. Programmes for school teachers are generally full-time and last two to four years in a teachers' college or special adult education training institution; those for instructors, etc., tend to be shorter (one year or less) and often part-time.

Usual award for successful completion is a certificate or diploma.

51422 Teacher training programmes for teaching handicapped children

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, usually consisting of lectures and practice teaching designed to train teachers of handicapped children. Emphasis is given to practice teaching and to the practical procedures involved in teaching handicapped children rather than to the theory of education.

Principal course content is linked to the handicaps in question and usually includes educational foundations; procedures for teaching handicapped children; courses leading to a basic understanding of the physical, mental, social, emotional problems of handicapped children; basic understanding of

the psychological implications of the disabling conditions; lesson planning; audio-visual aids; and school administration. In addition, time is devoted to observation of experienced teachers and to practice teaching.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with related work experience may be admitted with lower educational qualifications. For short programmes, especially those designed to improve the qualifications of teachers, work experience is usually given greater weight than educational qualifications. Programmes are generally full-time, lasting from two to three years in a teachers' college, community college, university, or teaching hospital.

Usual award for successful completion is a certificate or diploma.

51499 Other specialized teacher training programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, designed to train teachers with specialities other than those defined above. Emphasis is given to problems of the classroom teacher rather than to the theory of education.

Principal course content is geared to the speciality in question and usually includes the philosophy, history, psychology, and sociology of education; courses specifically related to teaching within the particular area of specialization; lesson planning; audio-visual aids; school administration; and general academic subjects. In addition, time is devoted to observing experienced teachers and to practice teaching.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with related work experience may be admitted with lower educational qualifications. Programmes are generally full-time and last from one to three years in a teachers' college or specialized educational training school.

Usual award for successful completion is a certificate or diploma.

518 Fine and applied arts programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, dealing with principles, techniques, performance, and production in the fine and applied arts. In the programmes at this level, emphasis is placed on the techniques, performance methods, and related practical aspects of the subjects with little attention to underlying theory or general principles.

The principal kinds of programmes included, which aim at the development of artistic creativeness and of skill in performance, are concerned with drawing, painting, sculpturing, dancing, musical performance, dramatic performance, production of handicrafts, photography (including cinematography, television camera work, and press photography), and applied or commercial art, etc. Programmes in any of these areas usually include courses in related fine or applied arts as well as courses in related subjects such as the humanities, social and behavioural sciences, and natural sciences. (Note that programmes in architecture and town planning are not included here but in 558.)

Programmes may be full-time or part-time, day or evening. Many are of relatively short duration - i.e. less than one year - and they include retraining, refresher, and sandwich courses. In many cases, periods of study alternate with periods of practice or work in the relevant field. Programmes are usually conducted in special institutions such as colleges of art, conservatories of music, schools of dramatic art, of dancing, or other art specialities. In some cases, programmes are provided in institutes of technology, technical colleges or community colleges. Programmes are sponsored by many kinds of agencies which, along with the types of institutions mentioned above, include musical organizations, organizations in the drama, dance companies, etc.

Usual minimum educational prerequisite is completion of second level education, second stage. Applicants with experience or talent but with lower educational qualifications may be admitted to a programme after demonstrating satisfactory performance in the subject concerned.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

51801 General programmes of art studies

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, designed to develop skill in design and in the visual and plastic arts, for professional, cultural or recreational purposes. Programmes consist of lectures, group discussion, and studio practice sessions with applied vocational content taking up most of the programme time.

Students are not expected to concentrate on particular areas. They are encouraged to draw and paint; to make pots and ceramics; to design and weave textiles; to shape wood and stone; to design stage settings, etc.

Programmes normally are given on a full- or part-time basis in a college of art and last the equivalent of from one to three years' full-time study. The chief aim of the programme is the development of creativeness and skill in a number of media, so a variety of subjects constitutes the programme; including drawing and painting, design, freehand drawing, history of art, lettering or calligraphy, theory of colour and silk-screen printing, history of the theatre; sculpture; bronze casting; dancing; music; handicrafts; drama; photography; etc. Of course, all programmes do not include the full range of subjects.

Usual minimum educational prerequisite is completion of second level education, second stage, and/or demonstrated skill or talent in relevant artistic pursuits.

Generally, certificates of competence are awarded on completion of the programme, either by the institution itself or by a public authority. Successful students may become professional artists.

51804 Programmes in drawing and painting

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, designed to develop skill in drawing and painting for professional, cultural or recreational purposes. Programmes consist of lectures, group discussion and studio practice sessions with applied vocational content taking up most of the programme time.

Programmes normally are given on a full- or part-time basis in a college of art and last the equivalent of from one to three years' full-time study. The chief aim of the programme is the development of creativeness and skill in drawing and painting, but related prescribed courses may be included in such subjects as design, freehand drawing, history of art, lettering or calligraphy, theory of colour and silk-screen printing.

Usual minimum educational prerequisite is completion of second level education, second stage, and/or demonstrated skill or talent in drawing or painting.

Generally, certificates of competence are awarded on completion of the programme, either by the institution itself or by a public authority. Successful students may become professional artists.

51808 Programmes in sculpturing

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, designed to develop skill in sculpturing, for professional, cultural or recreational purposes. Programmes consist of lectures, group discussion and studio practice sessions with applied vocational content taking up most of the programme time.

Programmes normally are given on a full- or part-time basis in a college of art and last the equivalent of from one to three years' full-time study. The chief aim of the programme is the development of creativeness and skill in sculpturing, but related prescribed courses may be included in such things as the history of culture, basic form and design, visual and spatial relationships.

Usual minimum educational prerequisite is completion of second level education, second stage, and/or demonstrated skill or talent in sculpturing.

Generally, certificates of competence are awarded on completion of the programme, either by the institution itself or by a public authority. Successful students may become professional sculptors.

51812 Programmes in handicrafts

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, designed to develop skill in handicrafts for professional, cultural or recreational purposes. Programmes consist of lectures, group discussion and studio practice sessions

with applied vocational content taking up most of the programme time. Students normally devote themselves to one aspect of handicrafts such as jewellery, pottery, weaving or woodcarving.

Programmes normally are given on a full- or part-time basis in a college of art and last the equivalent of from one to three years' full-time study. The chief aim of the programme is the development of creativeness and skill in the chosen field of study, but related prescribed courses may be included in such things as centrifugal casting, common hand and heavy tools, kilns, soldering torches, colour, history of art.

Usual minimum educational prerequisite is completion of second level education, second stage, and/or demonstrated skill or talent in doing handicrafts.

Generally, certificates of competence are awarded on completion of the programme, either by the institution itself or by a public authority. Successful students may become professional potters, woodcarvers, etc.

51822 Programmes in music

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, designed to develop skill in music for professional, cultural or recreational purposes. Programmes consist of lectures, group discussion and studio practice sessions with applied vocational content taking up most of the programme time. Students normally devote themselves to one aspect of music such as singing, playing an instrument, arranging or conducting.

Programmes normally are given on a full- or part-time basis in a music school and last the equivalent of from one to three years' full-time study. The chief aim of the programme is the development of creativeness and skill in the chosen field of study, but related prescribed courses may be included in such subjects as music history, harmony, counterpoint, aural theory, orchestration, arranging and composition.

Usual minimum educational prerequisite is completion of second level education, second stage, and/or demonstrated skill or talent in the chosen field of study.

Generally, certificates of competence are awarded on completion of the programme, either by the institution itself or by a public authority. Successful students may become professional musicians.

51832 Programmes in the drama

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, designed to develop skill in drama for professional, cultural or recreational purposes. Programmes consist of lectures, group discussion and studio practice sessions with applied vocational content taking up most of the programme time. Students normally devote themselves to one aspect of drama such as acting, stagecraft, make-up or direction.

Programmes normally are given on a full- or part-time basis in a drama school and last the equivalent of from one to three years' full-time study. The chief aim of the programme is the development of creativeness and skill in the chosen field of study, but related prescribed courses may be included in such subjects as acting, voice and diction, stagecraft, history of the theatre, oral interpretation, rehearsal, and production.

Usual minimum educational prerequisite is completion of second level education, second stage, and/or demonstrated skills or talent in the chosen field of drama.

Generally, certificates of competence are awarded on completion of the programme, either by the institution itself or by a public authority. Successful students may become professional actors, stage managers, make-up artists, directors, etc.

51842 Programmes in photography and cinematography

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, designed to develop skill in photography or cinematography for professional, cultural or recreational purposes. Programmes consist of lectures, group discussion and studio practice sessions, with applied vocational content taking up most of the programme time. Students normally devote themselves to one aspect of photography or cinematography.

Programmes normally are given on a full- or part-time basis in a college of art or institute of technology, and last the equivalent of from one to three years' full-time study. The chief aim of the programme is the

development of creativeness and skill in the chosen field of study, but related prescribed courses may be included in such things as art history, animation, design, visual fundamentals, colour and the camera.

Usual minimum educational prerequisite is completion of second level education, second stage, and/or demonstrated skill or talent in the chosen field.

Generally, certificates of competence are awarded on completion of the programme, either by the institution itself or by a public authority. Successful students may become professional photographers or cameramen.

51899 Other fine and applied arts programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, designed to develop skill in fine arts programmes not previously defined, for professional, cultural or recreational purposes. Programmes consist of lectures, group discussion and studio practice sessions with applied vocational content taking up most of the programme time. Students may devote themselves to one particular fine art, e.g. the dance, but most programmes are more general in content.

Programmes normally are given on a full- or part-time basis in an appropriate college or institute and last the equivalent of from one to three years' full-time study. The chief aim of the programme is the development of creativeness and skill in the chosen field of study, but related prescribed courses may be included.

Usual minimum educational prerequisite is completion of second level education, second stage, and/or demonstrated skill or talent in the chosen field of study.

Generally, certificates of competence are awarded on completion of the programme, either by the institution itself or by a public authority. Successful students may become professionals in their field.

522 Humanities programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and practices of subjects in the humanities. In these programmes, attention is directed typically toward the practical application of languages and other branches of the humanities rather than to underlying principles or philosophies.

Principal kinds of programmes included are those dealing with languages such as translation, interpretation, etc.; programmes in the literature of the current or vernacular language, including programmes in creative writing, and programmes in history, etc. A programme in any of these subjects usually contains some background courses in related humanities subjects designed to supplement and assist in mastering a major subject. Other background courses often include a selection from the social and behavioural sciences, natural sciences, commercial and business administration, and mathematics.

Programmes may be full-time or part-time, day or evening. Many are of relatively short duration - i.e. less than one year - and they include retraining, refresher, and sandwich courses. Programmes are usually conducted in institutes of technology, technical colleges or community colleges, special schools. Many different kinds of agencies sponsor these programmes, some examples being government departments and other government agencies, armed services, professional societies, trade unions, employers and employers' associations, etc.

Usual minimum educational prerequisite is completion of second level education, second stage, but mature students, especially those with relevant work experience, may be admitted with lower educational qualifications. However, these programmes require at least some second level education, supplemented by experience, to enable students to master the subject matter.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

52202 Programmes for interpreters and translators

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of lectures, group discussions, laboratory work, and practice sessions dealing with the principles and methods of language translation and interpretation.

Principal course content usually includes some of the following : language instruction appropriate to the requirements of the student; philology, including etymology, grammar, criticism, literary and linguistic history.

These programmes involve laboratory and practice sessions using tape recorders and other equipment, including the development of techniques for rapid note-taking and accurate deciphering. Background courses often included are oral expression, literature, creative writing, and appropriate specialities in the other humanities, social and behavioural sciences, and natural sciences.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a language programme. For admission to most programmes for interpreters and translators, the language skills required imply educational qualifications that include some university education.

Usual award for successful completion of the programme is a certificate or diploma.

52208 Other programmes in languages, except the current or vernacular language

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom sessions and oral practice in one or more foreign languages. The latter may be classical - for example, Sanskrit - but they are usually languages in current use. The ones most frequently studied have currency throughout large areas - for example, English, Russian, Mandarin and Hindi. The emphasis is usually on the use of and proficiency in a language rather than on its literature or history.

These programmes are typically given in commercial or technical colleges or institutes, often in private business colleges or language schools. They usually last one year or more.

Principal course content includes simple grammar and syntax; composition in the language; translation from the language; elementary study of its modern literature; practice in conversation; letter-writing in the language. In some instances, programmes may focus on the needs of commercial correspondents, of representatives in offices, or of air personnel. Language laboratories are frequently available. A required feature may be periods of study abroad, in the countries in which the language being studied is in current usage.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature applicants with relevant experience may be admitted with lower educational qualifications. Admission may be subject to the passing of a special language test.

Usual award for successful completion is a certificate or diploma.

52211 Programmes in the current or vernacular language and its literature

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom sessions and oral practice in the language currently spoken and used. Language laboratories, tape recorders and other devices are employed.

These programmes are typically given in commercial or technical colleges or institutes, often in private business colleges or language schools. They usually last one year or more. Participants fall into two main categories, i.e. immigrants seeking to improve their command of the vernacular, and natives interested in deepening their knowledge and understanding of their mother tongue.

Principal course content usually includes grammar and syntax; general linguistics; principles of literary criticism; history of literature; and sometimes the philosophy, phonology and morphology of the language. Stress may be laid on the writing of essays, which in some cases become short theses. Students may be encouraged to write poetry.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature applicants with relevant experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

52299 Other humanities programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction and practice in languages or the humanities but not classifiable under 52202, 52208 or 52211. Such programmes may stress an international language - for example, esperanto - comparative literature and language; a classical language; history; archaeology; philosophy, etc.

Principal course content usually includes elementary study of the grammar and syntax of one or more languages and practice in using a language, both in conversation and in writing. Other features of these programmes would depend on whether the chief aim is artistic, cultural, philosophical, ideological, or political. The programmes usually last one year and are typically given in a technical or other college or institute.

Usual minimum educational prerequisite is completion of second level education, second stage, but mature students, especially those with relevant work experience, may be admitted with lower educational qualifications.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

526 Religion and theology programmes

Programmes in education at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, concerned with the study of religious doctrine, the performance of religious rites and offices, and the propagation of religious beliefs. Theological scholarship is stressed less than in programmes leading to university degrees, with greater emphasis in study being placed on the practical rôle of ministers of religion, priests, or other religious workers.

Principal course content usually includes study of relevant classical languages (e.g. Pali, Sanskrit, Hebrew, Greek, Latin, etc.), courses in religious history, the relevant theology, comparative religion, preaching, singing, worship, and ritual. In addition, for those planning to become ministers of religion, time is devoted to practical work among people and to assisting qualified ministers of religion in the performance of religious services and offices in places of worship.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with appropriate motivation may be admitted with lower educational qualifications.

Usual award for completion of a programme leading to ordination as a minister of religion is the ordination ceremony. For other programmes a certificate or diploma is usually awarded.

52600 Religion and theology programmes

(See definition under 526)

530 Social and behavioural science programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and practices of social and behavioural sciences. Although theory is not ignored, typically in these programmes attention is directed toward the practical, technological and factual aspects of the subjects studied, with relatively little time spent on theoretical principles and research projects.

The principal kinds of programmes are those dealing with economics, political science, sociology, psychology, geography, anthropology, etc. A programme in any of these subjects usually contains some background courses in related social and behavioural sciences designed to supplement and assist in mastering the major subject. Other background courses usually include some from humanities, natural science, commercial and business administration, mathematics, computer science, and statistics.

Programmes may be full-time or part-time, day or evening. Many are of relatively short duration - i.e. less than one year - and they include retraining, refresher, and sandwich courses. The programmes are usually conducted in institutes of technology, technical colleges, or community colleges, and they include programmes sponsored by many different kinds of agencies, including employers' associations, trade unions, co-operative societies, professional societies, institutions, etc.

Usual minimum educational prerequisite is completion of second level education, second stage, but mature students, especially those with relevant work experience, may be admitted with lower educational qualifications. Work experience is likely to be given more weight for retraining and refresher courses, but in all cases some second level education will be essential to permit the student to master the subject matter in these programmes.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

53012 Programmes in economics

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction and group discussion dealing with the fundamental principles of economics.

Principal course content usually includes some of the following : basic concepts and terminology of economics, economic activities and institutions, analysis of economic problems, standards of living, problems of the consumer, operations of business, business costs and prices, competition and monopoly, corporations, anti-trust laws, public utilities, government and business, money and credit, effects of inflation and deflation, monetary standards, natural resources and the farm problems, problems of the worker, labour-management relations, international economic relations, government and taxation, business cycles.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award for programmes of one year or more, typically given in a technological or similar institution, is a certificate or diploma. For short courses, many of which are sponsored by employers, employers' associations, or trade unions, a certificate of satisfactory completion is usually given.

53022 Programmes in political science

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction and group discussion dealing with the fundamental principles of political science.

Principal course content usually includes some of the following : basic concepts and terminology of political science, political institutions, history of politics, government organization, comparative government, international inter-governmental organizations, public administration, political parties and movements, and principles of governmental planning.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award, for programmes of one year or more typically given in a technological or similar institution, is a certificate or diploma. For short courses, many of which are sponsored by employers, employers' associations, or trade unions, a certificate of satisfactory completion is usually given.

53032 Programmes in sociology

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction and group discussion dealing with the fundamental principles of sociology.

Principal course content usually includes some of the following : principles of sociology, sociological theory and methodology, social organization, social change, social control, the family as a social institution, problems of delinquency, and sociological research methods.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award, for programmes of one year or more typically given in technological or similar institutions, is a certificate or diploma. For short courses, many of which are sponsored by employers, employers' associations, or trade unions, a certificate of satisfactory completion is usually given.

53052 Programmes in psychology

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction and group discussion dealing with the fundamental principles of psychology.

Principal course content usually includes some of the following : principles of psychology; history of psychology; applications of psychology; e.g. educational, vocational, clinical, industrial; use of psychological tests; and abnormal psychology. Background courses often included are statistics, computer science, principles of economics, principles of sociology, principles of biology, and research methodology.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award, for programmes of one year or more typically given in technological or similar institutions, is a certificate or diploma. For short courses, many of which are sponsored by employers, employers' associations, or trade unions, a certificate of satisfactory completion is usually given.

53099 Other social and behavioural science programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction and group discussion dealing with the basic principles of social and behavioural sciences not included in the above programme groups, e.g. geography, anthropology, etc.

Principal course content usually includes some of the following : physical geography, economic geography, geographical mapping, urban geography, ecological geography; principles of anthropology, identification of archaeological specimens, applied anthropology, cultural and social evolution. Background courses often included are geology, principles of sociology, principles of anthropology, principles of biology, photogrammetry, statistics, research methodology, history, human ecology, methods of exhibiting specimens.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award, for programmes of one year or more typically given in technological or similar institutions, is a certificate or diploma. For short courses, many of which are sponsored by employers, employers' associations, or trade unions, a certificate of satisfactory completion is usually given.



534 Commercial and business administration programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, dealing with business practices, office procedure, record keeping and management, and business and institutional administration. Although theory is not ignored, these programmes emphasize the practical, technological, and factual aspects of the subjects studied, spending relatively little time on historical, theoretical and general aspects.

The principal kinds of programmes are those dealing with stenographic and secretarial skills, accountancy, business-machine operation, data-processing operations such as those involving card punching and computer operation, financial operations such as those concerned with stock market and investment analysis, public administration, institutional administration (including hospital and school administration), business administration, marketing, sales promotion, hotel and restaurant administration, etc. These programmes usually include background courses which supplement the major subject and assist students in mastering the subject matter of the programme, including courses in the social and behavioural sciences, humanities, law and jurisprudence, natural sciences, mathematics, and statistics.

Programmes may be full-time or part-time, day or evening. Many are of relatively short duration - i.e. less than a year - and they include retraining, refresher, and sandwich courses. The programmes are usually conducted in institutions of technology, technical colleges or community colleges. They are sponsored by a wide variety of agencies, including employers, employers' associations, trade unions, co-operative societies, professional societies, government departments and government agencies, etc.

Usual minimum educational prerequisite is completion of second level education, second stage, but mature students, especially those with relevant work experience, may be admitted with lower educational qualifications. Work experience is likely to be given more weight for retraining and refresher courses, but in all cases some second level education will be required to ensure that the student has sufficient educational background to master the subject matter.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

53401 General commercial programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree. These programmes are mainly concerned with the general study of business administration,

business practices and office procedures, rather than with the achievement of a high degree of skill in special areas such as typing or accounting, though some knowledge of such subjects will be involved.

Principal course content usually includes the theory and general principles of office management, accountancy, data-processing operations; financial operations, marketing and sales promotion. The programmes usually include background courses in subjects such as sociology, economics, statistics, commercial law. Students will usually be expected to acquire skill in shorthand and typewriting.

Programmes of this type are usually given in a college of technology, community college, business college, or similar institution. They are usually full-time and last for more than one year. The majority of students admitted to such a programme have completed education at the second level, second stage, but those with relevant work experience and aptitude may be admitted with somewhat lower educational qualifications.

Usual award for successful completion of a programme is a certificate or diploma.

53402 Secretarial programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of study and practice in secretarial procedures. These programmes are mainly concerned with the practical aspects of secretarial work, including typing, shorthand, and general office procedures, and relatively little time is spent on the theory or general principles of office management.

Principal course content usually includes typing and shorthand, commercial correspondence, the design and operation of filing and other record-keeping systems, office management procedures, personnel records, etc. In general, this part of the programme is designed to provide the secretarial skills required to assist an executive in handling his appointments and general management duties. Some programmes include other commercial subjects such as bookkeeping, commercial law, the operation of office machines, etc., and in some cases, general subjects such as mathematics, literature, and foreign languages may be included.

Programmes at this level are usually designed for adults and for young people who have completed education at the second level, second stage. The programmes are intensive and usually have a duration of one year or less. Applicants for admission having relevant experience and aptitude are sometimes admitted with lower educational qualifications. The programmes are given in community colleges, colleges of technology and business colleges, and are sponsored by a wide variety of agencies including governments,

business firms, the armed services, etc.

Usual award for successful completion is a certificate or diploma.

53403 Accountancy programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of study and practice in accountancy. These programmes are mainly concerned with the practical aspects of keeping accounts and preparing financial and other statements, with relatively little time spent on accountancy theory or the general principles of record keeping. Note that programmes leading to a qualification such as that of chartered accountant or certified public accountant are not included here but are found in 6403.

Principal course content usually includes general accountancy, preparation of financial statements, and other operational statements required for business management, maintenance of inventory records, records of purchases, sales, and cost records; valuation of assets; preparation of a corporation income tax return, preparation of statistical returns, etc. Some programmes of this kind may include the study of relevant commercial law, tax law, business correspondence, office machine operation, and computer operation.

Programmes of this type are usually given in a college of technology, community college, business college, or similar institution. They are usually full-time and last for more than one year. The majority of students admitted to such a programme have completed education at the second level, second stage, but those with relevant work experience and aptitude may be admitted with somewhat lower educational qualifications.

Usual award for successful completion of a programme is a certificate or diploma.

53412 Programmes in business machine operation, except electronic data processing

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of study and practice in the operation of business machines, except electronic computers and their ancillary equipment. Examples of the kinds of machines involved are bookkeeping machines, calculating machines except electronic computers, mailing machines, duplicating machines, etc.

Principal course content depends on the particular kind of machine involved, but these programmes generally include the study of the operating principles of the machine and the procedures required to maintain it in good operating condition such as cleaning, lubricating, and normal maintenance. In addition, many of these programmes include other related commercial subjects such as accountancy, commercial correspondence, typing, and record keeping. Some programmes of this kind may include the study of general subjects such as mathematics or literature.

Programmes of this type are usually given in a college of technology, community college, business college, or similar institution. They may be full-time or part-time, and vary in duration from a month or two to more than a year. The majority of the students admitted to these programmes have completed education at the second level, second stage, but those with relevant work experience and aptitude may be admitted with somewhat lower educational qualifications, particularly to the shorter programmes.

Usual award for successful completion is a certificate or diploma.

53422 Programmes in electronic data processing

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom sessions and practice in the use of computers, their ancillary equipment and related software systems. These programmes are mainly concerned with the application of computers as distinguished from computer science programmes (54641, which include programmes dealing with the theory and practice of computer functioning, new applications for computers and the related systems analysis).

Principal course content usually includes, i.a. computer programming, storage devices, access methods, software systems, systems design, and developments in computer types. Background courses usually include mathematics, statistics, linear programming, and elementary systems analysis.

Programmes of this kind are given by a wide variety of agencies, including schools and colleges of technology, manufacturers and sellers of computers, government agencies, and other large users of computers. A complete programme takes one year or more, but many organizations that use computers arrange short programmes for a relatively high proportion of their employees to make them familiar with basic computer functioning. Between these extremes are programmes and courses of intermediate length and intensity.

Usual minimum educational prerequisite is completion of second level education, second stage. For short courses, the educational prerequisite may be less stringently enforced, giving way to the need for employees to be familiar with the rôle of the computer in their work setting.

Usual award for successful completion is a certificate or diploma.

53432 Programmes in stock market and investment analysis

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of study and practice in the theory of investment analysis and the operation of the stock market. Principal areas of study include portfolio management, understanding the stock market system, and the examination of investment institutions.

Principal course content usually includes some of the following : analysis of company financial reports, analysis of stocks, bonds, and other types of securities; procedures for securities, market transactions; estate and trust management; portfolio balance; and company law. Background courses often included are economic theory, money and banking, corporate finance, and statistics.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those who have relevant work experience, are often admitted with lower educational qualifications. Financial institutions and professional associations offer specially-designed programmes in this field for their employees.

Usual award for successful completion of a programme is a certificate or diploma.

53442 Programmes in public administration

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction and group discussion, dealing with the principles and practices of public administration.

Principal course content usually includes some of the following : objectives of public policy, the theory of taxation, economic stabilization, the structure of government, the civil service, government and the community, cultural influences in government, regionalism, nationalism, and inter-governmental relations. Background courses usually include economics, sociology, political science, foreign languages, and history.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a certificate or diploma.

53452 Programmes in institutional administration

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction, exercises and group discussion, dealing with the principles and practices of institutional management.

Principal course content depends on the type of institution relevant to the student's speciality, but all courses are likely to include some accounting, financial management, purchasing policy, principles of interior maintenance of buildings, personnel administration, and principle of management. In addition, special courses for the administration of hospitals, schools, institutions for the aged, etc., are included. Background studies usually include appropriate natural sciences, social sciences, mathematics, etc.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion of a programme is a certificate or diploma.

Programmes of this kind are given by a wide variety of agencies, including schools and colleges of technology, manufacturers and sellers of computers, government agencies, and other large users of computers. A complete programme takes one year or more, but many organizations that use computers arrange short programmes for a relatively high proportion of their employees to make them familiar with basic computer functioning. Between these extremes are programmes and courses of intermediate length and intensity.

Usual minimum educational prerequisite is completion of second level education, second stage. For short courses, the educational prerequisite may be less stringently enforced, giving way to the need for employees to be familiar with the rôle of the computer in their work setting.

Usual award for successful completion is a certificate or diploma.

53432 Programmes in stock market and investment analysis

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of study and practice in the theory of investment analysis and the operation of the stock market. Principal areas of study include portfolio management, understanding the stock market system, and the examination of investment institutions.

Principal course content usually includes some of the following : analysis of company financial reports, analysis of stocks, bonds, and other types of securities; procedures for securities, market transactions; estate and trust management; portfolio balance; and company law. Background courses often included are economic theory, money and banking, corporate finance, and statistics.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those who have relevant work experience, are often admitted with lower educational qualifications. Financial institutions and professional associations offer specially-designed programmes in this field for their employees.

Usual award for successful completion of a programme is a certificate or diploma.

53442 Programmes in public administration

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction and group discussion, dealing with the principles and practices of public administration.

Principal course content usually includes some of the following : objectives of public policy, the theory of taxation, economic stabilization, the structure of government, the civil service, government and the community, cultural influences in government, regionalism, nationalism, and inter-governmental relations. Background courses usually include economics, sociology, political science, foreign languages, and history.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a certificate or diploma.

53452 Programmes in institutional administration

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction, exercises and group discussion, dealing with the principles and practices of institutional management.

Principal course content depends on the type of institution relevant to the student's speciality, but all courses are likely to include some accounting, financial management, purchasing policy, principles of interior maintenance of buildings, personnel administration, and princip of management. In addition, special courses for the administration of hospitals, schools, institutions for the aged, etc., are included. Background studies usually include appropriate natural sciences, social sciences, mathematics, etc.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion of a programme is a certificate or diploma.

53462 Business administration, marketing and sales programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction, group discussion and practice sessions dealing with the principles and practices of business administration, marketing, sales promotion and salesmanship, usually through the analysis of case histories. Many of the programmes are specialized in one or two subjects, and many are of short duration (i.e. three or four weeks).

Principal course content usually includes some of the following : principles of economics; statistical methods; general accountancy; cost accountancy; elementary systems analysis and computer programming; elementary commercial law; purchasing and inventory control; production scheduling and expediting; programme budgeting and cost control; personnel administration; job analysis and wage determination (including collective bargaining); mathematics of investment; market analysis; sales promotion and advertising; salesmanship.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications. For short courses, sandwich courses and courses designed to improve the qualifications of those already employed, work experience is usually given greater weight than educational qualifications.

Usual award for successful completion of a programme of one year or more, typically given in technological or similar institutes, is a certificate or diploma in business administration.

53499 Other commercial and business programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction and practice in the theory and application of specific commercial or business procedures and techniques not included in the above groups of programmes (i.e. 53401 to 53462).

Principal course content depends on the particular speciality, but most courses include subjects such as office work measurement; secretarial science; bookkeeping; record systems; work planning and scheduling; staff supervision; public relations; and purchasing methods, in addition to the special subjects.

Usual minimum educational prerequisite is completion of second level education, second stage, although in some cases admission to programmes of this kind depends on relevant work experience as much as on educational qualifications, particularly for mature candidates.

Usual award for programmes of one year or more is a certificate or diploma in a specific field of specialization.

542 Natural science programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, dealing with principles, and laboratory and field work methods in the natural sciences. The programmes are designed to prepare students for careers as relatively high-level technicians in various branches of science, emphasizing the practical, technological aspects of the subjects included with relatively little time spent on the more general, theoretical principles involved.

The principal kinds of programmes included are those dealing with biological sciences (e.g. general biology, botany, zoology, limnology, microbiology, entomology); chemistry (e.g. inorganic chemistry, organic chemistry, industrial chemistry); physics (e.g. general physics, thermal physics, spectroscopy, X-ray and radiation physics); geological sciences (e.g. geology, geophysics, physical geography, mineralogy, palaeontology); astronomy; meteorology; oceanography, metallurgy. Background courses designed to supplement and assist in mastering the major subject in these programmes include natural science courses in other subjects related to the major one, and in most cases mathematics, computer science, statistical analysis, social sciences and humanities.

Programmes may be full-time or part-time, day or evening. Many are of relatively short duration - i.e. less than one year - and they include retraining, refresher and sandwich courses. Practical demonstrations, field work and shop work (including periods of employment) are commonly included in these programmes. The programmes are often conducted in institutes of technology or technical colleges but many different kinds of agencies sponsor them, including professional societies, employers, employers' associations, trade unions, research institutes (both public and private), etc.

Usual minimum educational prerequisite is completion of second level education, second stage, but mature students, especially those with relevant work experience, are often admitted with lower educational qualifications. Work experience is likely to be given more weight for retraining and refresher courses but in all cases some second level education will be essential to permit the student to master the subject matter in these programmes.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

54202 Programmes in the biological sciences

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of biological technology.

Principal course content usually includes some of the following : general botany, general zoology, microbiology, plant physiology, taxonomic botany, mammalian anatomy, ecology, limnology, animal physiology, entomology, radiation biology, wildlife biology, biochemistry, breeding and reproductive physiology. Background courses often included are animal and plant pathology; organic chemistry, inorganic chemistry, analytical chemistry; electronics, electronic measurements instruments, instrumental analysis; graphics and photography.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are sometimes admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in biological sciences technology.

54212 Programmes in chemistry

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of chemistry.

Principal course content usually includes some of the following : inorganic qualitative chemistry, inorganic qualitative analysis, the chemical bond, sample preparation, oil chemistry, inorganic quantitative chemistry, inorganic quantitative analysis, petroleum testing, organic chemistry (aliphatic compounds), organic chemistry (aromatic compounds), industrial organic chemistry, industrial inorganic chemistry, gas and water analysis, physical chemistry, and electrochemistry. Background courses often included are mathematics, mechanics, electronics photometry, general physics, computer programming, instrumental analysis, mineralogy, light, materials testing, biochemistry, and glass blowing.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are sometimes admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in chemical technology.

54222 Programmes in geological sciences

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of geological sciences.

Principal course content usually includes some of the following : geophysics, physical geology, mineralogy, petrology, field geology, mining, geological drafting, structural geology, economic geology. Background courses often included are physics, chemistry, mathematics, forestry, surveying and mapping, plotter operation and compilation, language and communication, computer programming, and instrumental analysis.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in geological technology.

54232 Programmes in physics

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of physics.

Principal course content usually includes some of the following : evolution of modern physics, physical measurements, geometrical optics, wave theory, heat, statics, light, electrostatic and electromagnetic forces, thermodynamics, thermoelectricity, spectrometry, quantum mechanics, relativity, solid-state physics, and nucleonics. Background courses often included are geophysics, metrology, logic circuits, control systems, mathematics, chemistry, applied mechanics, drafting, photography, computer programming, and instrumental analysis.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are sometimes admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in physics technology.

54299 Other natural science programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles of natural sciences not included in the above groups of programmes. Examples of the kinds of programmes included are those in astronomy, meteorology, oceanography, metallurgy.

Principal course content usually includes some of the following : basic astronomy, astronomical observation techniques, introductory astrophysics, astrometry, stellar classification, galactic structure; synoptic meteorology, synoptic meteorological laboratory methods, physical meteorology, meteorological instrumentation; elements of oceanography; instrumentation and methods in oceanography, physical oceanography. Background courses often included are general biology, general physics, general chemistry, geology, mathematics, statistics, computer science.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are sometimes admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate which often specifies the kind of programme.

546 Mathematics and computer science programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and practices of mathematics and computer science. Although theory is not ignored, programmes at this level emphasize the practical, technological, and factual aspects of the subjects studied, spending relatively little time on the basic theoretical and general aspects.

The principal kinds of programmes included are those dealing with general mathematics, statistical methods, methods of actuarial mathematics, other applications of mathematics such as those in the field of biology, medicine, physics, astronomy, engineering, etc., and computer science including computer systems analysis, the technological aspects of computer functioning, and design of computers. The particular subject matter of a programme depends of course on a student's speciality, but all programmes of this kind include the study of basic mathematics at this level (e.g. differential and integral calculus, analytical geometry, trigonometry, algebra, and usually probability); some courses in related subjects such as natural sciences, social sciences, or engineering; and sometimes courses in the humanities such as foreign languages, literature, philosophy, etc.

Programmes may be full-time or part-time, day or evening. Many are of relatively short duration - i.e. less than a year - and they include retraining, refresher, and sandwich courses. The programmes are usually conducted in institutes of technology, technical colleges, or community colleges. They are sponsored by a wide variety of agencies, including governments, employers, employers' associations, trade unions, professional societies, etc.

Usual minimum educational prerequisite is completion of second level education, second stage. For short courses and refresher courses, in particular, mature students with relevant work experience may be admitted with somewhat lower educational qualifications, but ability to handle the material requires at least some education at the second level, second stage.

Usual award for successful completion of a programme is a certificate or diploma usually indicating the kind of programme involved.

54601 General programmes in mathematics

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and problem sessions dealing with mathematical principles and practice. These programmes emphasize mathematical practice rather than the underlying theory.

Principal course content usually includes, i.a. differential and integral calculus, analytical geometry, trigonometry, linear algebra, and probability theory. Additional work may be taken in some cases in such subjects as mathematical logic, the theory of numbers, mathematical statistics, and differential equations. Background courses often taken in association with mathematics include surveying, general physics, general biology, astronomy, and psychology.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those having relevant work experience, are sometimes admitted with lower qualifications.

Usual award for successful completion is a diploma or certificate.

54611 Programmes in statistics

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory sessions dealing with the principles and practices

of statistical analysis. These programmes emphasize the measurement techniques of the subject rather than the underlying theory.

Principal course content usually includes, i.a. general statistical methods, the theory of probability and sampling methods, measures of variance and dispersion, normal distributions, time series analysis, etc. These programmes also include basic mathematics such as differential and integral calculus, analytical geometry, and algebra. Background courses often included are chosen from the social sciences, natural sciences, and humanities.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those having relevant work experience, are sometimes admitted with lower qualifications.

Usual award for successful completion is a diploma or certificate.

54621 Programmes in actuarial science

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and problem sessions dealing with the principles and practices of actuarial science. These programmes emphasize actuarial practices rather than the underlying principles of insurance or mathematics.

Principal course content usually includes, i.a. the mathematics of investment, the construction of life tables, principles of actuarial data collection, experience rating, and usually basic mathematics such as probability theory, calculus, analytical geometry and algebra. Background courses usually include insurance law, investment policy, risk theory, principles of economics, and principles of accountancy.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those having relevant work experience, are sometimes admitted with lower qualifications.

Usual award for successful completion is a diploma or certificate.

54639 Other programmes in applied mathematics

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and problem sessions dealing with the principles and practices of applied mathematics not included in the above programme groups (i.e. 54611 or 54621). These programmes include applications of mathematics in such fields as economic analysis, biological and health sciences, physics, astronomy, engineering, etc. They are practical in orientation and designed to provide an education suitable for mathematical assistants in these areas.

Principal course content usually includes general mathematics, calculus, and analytical geometry and algebra, along with special courses suited to the student's major subject. In addition, most programmes of this type include courses in statistical analysis as well as background courses in the field of specialization chosen from the natural sciences, social sciences, humanities, engineering, computer-applied mathematics.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those having relevant work experience, are sometimes admitted with lower qualifications.

Usual award for successful completion is a diploma or certificate.

54641 Programmes in computer science

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and practice sessions in systems analysis, the theory and practice of computer functioning, new applications for computers, etc. These programmes emphasize the practical technological aspects of the subjects rather than the underlying theory.

Principal course content usually includes, i.e. general mathematics, calculus, probability theory, etc. Specialized courses in computer science tend to include the various computer languages, machine codes, programme documentation, the structure and design of the principal kinds of computer hardware, systems analysis including charting, computer applications including systems of programming, information science and programme library organization, etc. Some programmes of this kind include background courses in natural sciences, social sciences, engineering, computer-applied mathematics, etc.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those having relevant work experience, are sometimes admitted with lower qualifications.

Usual award for successful completion is a diploma or certificate.

550 Medical and para-medical programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, dealing with theoretical and practical aspects of medicine and health. The programmes are designed to prepare students for careers in such medical and health activities as public health, nursing, midwifery, physio- and occupational therapy, medical x-ray technology, respiratory technology, medical isotope technology, biomedical electronic technology, dental technology, pharmacy, optometry, osteopathy, chiropractic, podiatry and orthopaedic technology. Although theory is not ignored, these programmes are typically directed toward courses stressing the application of technology and relevant procedures rather than the theoretical, general and scientific principles of the subjects studied.

Important kinds of programmes included are those covering aspects of the activities mentioned above and similar kinds of activity. Background courses designed to supplement the major subject in these programmes include relevant specialities in the biological sciences (e.g. general biology, zoology, anatomy, microbiology); chemistry (e.g. organic chemistry, analytical chemistry); physics (e.g. x-rays, properties and uses of radioactive isotopes, optics); social sciences (e.g. economics, accounting, business management, sociology, psychology); often some options in the humanities. (Note that the medical technology programmes included here are those primarily concerned with helping in the medical and dental diagnostic and treatment procedures. Laboratory technician programmes in the biological and other natural sciences are included in field 542.)

Programmes may be either full-time or part-time, day or evening; and usually include practical demonstration and student participation in the relevant operations either as an employee or in practice sessions. Refresher courses are common. The programmes are sponsored by many kinds of agencies including, e.g. institutes of technology, specialized training centres, specialized schools (e.g. schools of nursing, many of which are connected with teaching hospitals), universities and colleges.

Usual minimum educational prerequisite is completion of second level education, second stage, but mature students, especially those with relevant work experience, are often admitted with lower educational qualifications. In all cases, however, some second level education will be considered essential to enable the student to master the varied subject-matter content of programmes at this level.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

55002 Public health inspection programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with items that affect public health such as communicable diseases; standards of sanitation in the food and water supply; disposal of garbage, sewage, etc.

Principal course content usually includes subjects such as human anatomy and physiology, communicable diseases, public health organization, sanitation, food hygiene, and law and jurisprudence relating to public health. Background courses often included are biology, microbiology, chemistry, physics, mathematics, food technology, and water technology.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in sanitary inspection.

55012 Nursing programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, hospital and laboratory instruction dealing with the care of the sick. Equal emphasis is placed on theory and practice in a hospital situation.

Principal course content usually includes subjects such as human anatomy and physiology, pharmaceutical chemistry, biochemistry, microbiology, social sciences and nursing techniques. Clinical experience in subjects such as surgery, medicine, obstetrics, gynaecology and psychology forms an indispensable part of the programme. Background courses often included are

general biology, general physics, general chemistry, mathematics and humanities.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in nursing.

55015 Midwifery programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, hospital and laboratory instruction dealing with the pre- and post-natal care of the mother and child.

Principal course content usually includes courses such as basic human anatomy and physiology, principles of obstetrics and gynaecology, midwifing practice, neo-natal and infant care, expectant parent education, family organization and health behaviour, public health organization.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in midwifery.

55022 Physiotherapy and occupational therapy programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and hospital instruction dealing with the treatment of the sick, using measures such as movement, application of heat, cold and ultra sound, vocational rehabilitation and physical retraining.

Principal course content usually includes courses such as basic human anatomy and physiology, body mechanics and kinesiology, electro-medical techniques, nursing orientation, clinical psychology, rehabilitation techniques, and principles of occupational therapy. Background courses often included are physical education, sociology, psychology and vocational guidance.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in physiotherapy and occupational therapy.

55032 Medical X-ray technology programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, hospital and laboratory instruction dealing with the operation and care of X-ray equipment used for medical diagnosis.

Principal course content usually includes subjects such as basic human anatomy and physiology, diagnostic radiologic technology, radioscope technology, radiotherapeutic technology, radiographic positioning, radiation protection, dark-room chemistry and nursing procedures. Background courses often included are general physics, general chemistry, mathematics, medical ethics and department administration.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in medical X-ray technology.

55039 Other medical technology programmes, except dental technology

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, hospital and laboratory instruction, dealing with respiratory technology; medical isotope technology; haematological, biochemical, and biomedical electronic techniques for diagnostic and treatment purposes.

Principal course content usually includes subjects such as oxygen administration and therapy, humidification therapy, ventilation therapy, lung physiotherapy and resuscitation, spirometry; isotopes and their production; medical isotope techniques and radiation safety; haematological electronic analysis (electrocardiograph operation); biochemical and biomedical electronic analysis (electroencephalograph technology). Background courses usually included are basic human anatomy and physiology, physics, chemistry, mathematics, microbiology (Note: Research laboratory technology programmes in the natural sciences such as those in biology, chemistry and physics are classified in 542 - Natural science programmes. The programmes included here, in 550, are technology programmes concerned with diagnostic and treatment procedures.)

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in medical technology.

55042 Dental practitioner programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with principles and practices of dental care. Students completing these programmes are qualified in some countries to practise dentistry.

Principal course content usually includes such subjects as oral anatomy and physiology, oral pathology, local anaesthesia, oral surgical procedures, dental x-ray technology, and oral hygiene. Background courses usually include biology, chemistry, physics, dental ethics and practice management.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a dental practitioner's certificate or diploma.

55046 Dental technology programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, hospital and laboratory instruction dealing with the technology of dental care and assisting a dentist, dental laboratory technology, and dental hygiene technology.

Principal course content usually includes dental assistant subjects such as dental anatomy and physiology, oral pathology, dental materials, preventive dentistry, dental instrument care and dental hygiene; dental laboratory technology subjects such as oral anatomy, investments and casting procedures, impression materials, dental waxes, synthetic resin materials, amalgams, dental ceramics, dental metallurgy; dental hygiene subjects such as dental health education, oral therapeutics, clinical and community dental services; operating dental auxiliary subjects such as curative dental procedures, treatment of teeth affected by dental decay, tooth extraction. Background courses often included are dental terminology, oral histology, sterilization and disinfection procedures, general chemistry, general physics, mathematics, psychology, sociology, dental law and ethics.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in dental technology.

55052 Pharmacy programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of drug dispensing.

Principal course content usually includes specialized pharmacy subjects such as pharmaceutical calculations, pharmaceutical preparations, biopharmaceutics, physical pharmacy and pharmacognosy. Background courses often included are basic human anatomy and physiology, biochemistry, organic chemistry, and pharmacy management.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in pharmacy.

55062 Optometry programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with testing and measuring the refraction power and visual range of the eye.

Principal course content usually includes specialized optometry subjects such as visual anatomy and physiology, optics and other principles of physics, visual defects and their correction, vision and occupation, laws of optical dispensing. Background courses often included are general biology, general chemistry, mathematics, eye exercises, and shop management.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in optometry.

55099 Other medical and para-medical programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and hospital instruction dealing with medical and para-medical programmes not included in the above programme groups. Examples of the types of programmes included are those in osteopathic, chiropractic, and similar disciplines; orthopaedic technician; podiatric programmes.

Principal course content usually includes subjects such as general human anatomy and physiology, body mechanics and kinetics, and other aspects of human anatomy and physiology particularly related to the speciality concerned. Background courses usually included are such subjects as general biology, biochemistry, microbiology, general chemistry, general physics, psychology, mathematics, and practice management.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

554 Engineering programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, dealing with principles and laboratory and field work methods in engineering technology. The programmes are designed to prepare students for careers as relatively high-level technicians in various branches of engineering, emphasizing the practical, technological aspects of the subject included with relatively little time spent on the more general, theoretical principles involved.

The principal kinds of programmes included are those dealing with land surveying (including photogrammetry), engineering drafting and design, chemical engineering technology (including materials technology), industrial engineering technology, metallurgical engineering technology, mining engineering technology, mechanical engineering technology (including technology in the design and development of space vehicles, aeronautical engineering technology, and marine engineering technology), agricultural and forestry engineering technology, etc. Background courses designed to supplement and assist in mastering the major subject in these programmes include engineering technology subjects from programmes related to the major one and appropriate subjects selected from related fields such as mathematics, natural sciences, social sciences, commercial and business administration, statistics, and computer science.

Programmes may be full-time or part-time, day or evening. Many are of relatively short duration - i.e. less than one year - and they include retraining, refresher, and sandwich courses. Practical demonstrations, field work, and shop work (including periods of employment) are commonly included in these programmes. The programmes are often conducted in institutions of technology or technical colleges, but many different kinds of agencies sponsor them, including professional societies, employers, employers' associations, government agencies (including the armed forces), research institutes, etc.

Usual minimum educational prerequisite is completion of second level education, second stage, but mature students, especially those with relevant work experience, are often admitted with lower educational qualifications. Work experience is likely to be given more weight for retraining and refresher courses, but in all cases some second level education will be essential to permit the student to master the subject matter in these programmes.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

55402 Programmes in surveying

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom instruction and field work dealing with the principles and practices of surveying. The programmes normally last three years, full time.

Principal course content usually includes some of the following : mathematics; physics; computer science; survey drafting mensuration; plane surveying, legal surveying, advanced plane surveying; municipal engineering; spherical trigonometry; astronomy; town planning; photogrammetry; geodetic surveying; airphoto interpretation; optics and optical tooling; modern survey methods.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a certificate or diploma in surveying.

55406 Programmes in drafting and design

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and practice sessions dealing with the principles and practices of drawing for blueprints of buildings, machinery, and other subjects; plans for layouts of streets, public works, community development, etc. The programmes may last from one to three years.

Principal course content usually includes mechanical drawing, engineering drawing, the use of equipment such as pantograph, drawing instruments, etc.; mathematics including plane geometry, trigonometry, and algebra; basic engineering subjects such as applied mechanics, engineering graphics, theory of structures, electrical circuitry, etc.; and usually some related subjects such as surveying, principles of architecture, town planning, photogrammetry, etc.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a certificate or diploma.

55412 Chemical engineering and materials technology programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of chemical engineering technology. Generally these programmes emphasize the application of mathematics, physics and chemistry to problems in the chemical process industries. The programmes usually last three years, full-time.

Principal course content usually includes some of the following : mathematics; physics; basic electronics; analytical chemistry; organic chemistry; inorganic chemistry; industrial chemistry; engineering economics; chemical instrumentation; physical chemistry; X-rays and radio chemistry; organic analysis; unit operations; engineering materials.

Usual minimum educational prerequisite is completion of second level education, second stage, with emphasis on science subjects.

Usual award for successful completion is a certificate or diploma in chemical engineering technology.

55416 Civil engineering technology programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of civil engineering technology. These programmes provide training for careers in the many phases of the design and construction of structural projects such as buildings, bridges, dams, highways, etc., and in the planning, construction, inspection, and maintenance of municipal services. The programmes usually last three years, full time.

Principal course content usually includes some of the following : physics; chemistry; mathematics; applied mechanics; computer science; engineering graphics; electrical circuits; surveying; construction methods; strength of materials; theory of structures; design of structures; mechanics of fluids; highway technology; reinforced concrete; structural steel design; hydraulics; sanitary technology; contracts and specifications; hydrology; foundations.

Usual minimum educational prerequisite is completion of second level education, second stage, with emphasis on science subjects.

Usual award for successful completion is a certificate or diploma in civil engineering technology.

55422 Electrical and electronics engineering technology programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of the principles and practices of electrical and electronics engineering technology. These programmes are concerned with the generation, control, distribution and utilization of electrical energy, with electronic circuit design and analysis, and the application of electronic equipment to the control of industrial processes and electrical apparatus. The programmes

usually last three years, full time.

Principal course content usually includes some of the following common to both electrical and electronic technology : physics; chemistry; mathematics; applied mechanics; computer programming; electrical measurements; circuit analysis; electronic devices; electronics; communications; introduction to electrical machines; logic circuits; control systems.

For electrical technology : electrical machines; power systems; pulse circuits; electrical design; instrumentation and telemetry.

For electronic technology : linear electronics; integrated circuits; communications; electronic systems; microwaves and radar; television systems.

Usual minimum educational prerequisite is completion of second level education, second stage, with emphasis on science subjects.

Usual award for successful completion is a certificate or diploma in electrical or electronics engineering technology.

55426 Industrial engineering technology programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of industrial engineering technology. These programmes are concerned with the problems of organization, supervision, scheduling and materials handling. Emphasis is placed on effectiveness and efficiency in the design and operation of complex automated production systems. The programmes usually last three years, full time.

Principal course content usually includes some of the following : physics; chemistry; mathematics; basic electricity; dynamics; mechanics of materials; production management; work study; engineering economy; computer programming; business and technical communication; statistical quality control; operations research; plant layout and materials handling; industrial psychology; production control; manufacturing processes.

Usual minimum educational prerequisite is completion of second level education, second stage, with emphasis on science subjects.

Usual award for successful completion is a certificate or diploma in industrial engineering technology.

55432 Metallurgical engineering technology programmes

Programmes at the third level: first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of metallurgical engineering technology. These programmes are concerned with the theoretical and practical study of the chemical and physical nature of metallic materials; the recovery of metals from their ores; the structure and properties of metals and their alloys and how these properties are utilized in engineering applications. The programmes usually last three years, full time.

Principal course content usually includes some of the following : mathematics; chemistry; physics; electricity and magnetism; engineering graphics; mechanics of materials; industrial instrumentation; electrical machines; physical metallurgy; mechanical metallurgy and foundry; non-metallic materials; metal fabrication; computer programming; physical chemistry; heat treatment; extractive metallurgy; electrochemistry; analysis of metals; flotation; metallurgical calculations.

Usual minimum educational prerequisite is completion of second level education, second stage, with emphasis on science subjects.

Usual award for successful completion is a certificate or diploma in metallurgical engineering technology.

55436 Mining engineering technology programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction, and field trips dealing with the principles and practices of mining technology. These programmes are concerned with the exploration for mineral deposits; mine development, mine production; mine plant engineering and design. The programmes usually last three years full time, occasionally two years.

Principal course content usually includes some of the following :
 mathematics; physics; chemistry; mechanics; basic geology; history and
 economics of mining; strength of materials; mine surveying; mining geology;
 metallurgy; mining methods; mine organization and operation; mine
 ventilation and dust control; developments in mining methods; work study;
 introduction to operations research; rock mechanics technological
 statistics; economic geology.

Usual minimum educational prerequisite is completion of second level
 education, second stage, with emphasis on science subjects.

Usual award for successful completion is a certificate or diploma in
 mining engineering technology or mining technology.

55442 Mechanical engineering technology programmes

Programmes at the third level : first stage, of the type that leads
 to an award not equivalent to a first university degree, primarily consisting
 of classroom and laboratory instruction dealing with the principles and
 practices of mechanical engineering technology, including marine engineering
 and aeronautical engineering. These programmes are concerned with energy
 conversion and with the design, manufacture, installation, operation, and
 maintenance of all kinds of mechanical devices. The programmes usually last
 three years, full time.

Principal course content usually includes some of the following :
 physics; chemistry; mathematics; engineering graphics; electrical circuits;
 electrical machines; mechanics of machines; strength of materials;
 engineering drawing and design; applied thermodynamics; materials science;
 aerodynamics, aircraft stability and control; fluid mechanics; machine
 design; manufacturing processes; electrical equipment applications;
 instrumentation; cybernetics servo-mechanisms; production engineering;
 computer programming; metallurgy and welding; thermal systems; engineering
 economy.

Usual minimum educational prerequisite is completion of second level
 education, second stage, with emphasis on science subjects.

Usual award for successful completion is a certificate or diploma in
 mechanical engineering technology.

55452 Agricultural and forestry engineering technology programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory instruction and field work, dealing with the principles and practices of agricultural and forestry engineering. Agricultural engineering is concerned with the application of mechanization for the development of farm land, soil and water conservation, irrigation, crop production, harvesting, handling, storage and processing of agricultural products; the design of farm structures and machinery; while forestry engineering is concerned with the application of engineering principles to forestry problems, with emphasis on logging operations. These programmes emphasize mainly the practical and technological aspects of the subjects studied rather than their theoretical principles.

Principal course content usually includes some of the following : the design and construction of farm equipment and its practical application to agriculture, soil and water conservation, irrigation and drainage systems, analysis of farm production systems; production planning and control in logging; logging technology; logging transporation; forest mensuration, etc. These programmes usually include related subjects such as mathematics, natural sciences, agricultural economics and forestry economics, drafting, and perhaps some social sciences.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a certificate or diploma.

55499 Other engineering technology programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of engineering technology. This group includes programmes in engineering technology not elsewhere classified, such as welding technology, technology of plastics. The programmes usually last three years, full time.

For welding technology (as an example), principal course content usually includes some of the following : physics; chemistry; mathematics; applied mechanics; engineering graphics; electrical circuits; computer programming; mechanics of machines; mechanics of materials; engineering

drawing and design; manufacturing processes; fundamental electronics; welding analysis; metallurgy; electrical and electronics control systems; machine design; non-destructive testing; welding processes; fluid mechanics; structural design.

Usual minimum educational prerequisite is completion of second level education, second stage, with emphasis on science subjects.

Usual award for successful completion is a certificate or diploma in the appropriate engineering technology.

558 Architectural and town planning programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and methods of structural architecture, landscape architecture, and town or community planning, through classroom instruction, projects and, where applicable, field work. The programmes are designed to prepare students for careers as relatively high-level technicians, and therefore stress the practical and technological aspects of the subjects included, with relatively little time spent on the more general, theoretical, and historical principles.

The principal kinds of programmes included are those dealing with structural architecture (architectural drafting, building materials, structural design, etc.), landscape architecture (planting design, earth grading, drainage and irrigation systems, etc.), and town or community planning (urban planning projects, urban redevelopment, urban transit systems in relation to community planning, etc.). Programmes of this type usually include background courses designed to supplement and to assist in mastering the major subject. These usually include some courses in architectural and town planning programmes other than the one being followed by the student, courses in relevant engineering areas, courses in related agricultural subjects for students in landscape architecture, and courses in fields such as mathematics, statistics, natural sciences, social sciences, and the humanities.

Programmes may be full-time or part-time, day or evening. Many are of relatively short duration - less than one year - and they include retraining, refresher, and sandwich courses. Practical demonstrations, field work, and projects designed to enhance the student's appreciation of the subjects form an important part of these programmes. Programmes are usually conducted at institutes of technology or technical colleges, although they may be sponsored by a variety of agencies.

Usual minimum educational prerequisite is completion of second level education, second stage, but mature students, especially those with relevant work experience, are often admitted with lower educational qualifications. Work experience is likely to be given more weight for retraining and refresher courses, but in all cases some second level education will be essential to permit the student to master the subject matter in these programmes.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

55802 Programmes in structural architecture

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction, dealing with the principles and practices of architecture. These programmes deal primarily with the technological and practical aspects of architecture rather than with the theoretical and scientific principles involved.

Principal course content usually includes, i.a., the history of architecture; architectural drawing; building methods, materials, and assemblies; mechanical equipment of buildings and the social rôle of architectural design. Background courses usually include basic civil engineering, relevant courses from the natural sciences, social sciences, humanities, fine arts, and law (local ordinances).

Usual minimum educational prerequisite is completion of second level education, second stage, but mature applicants with relevant work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in architectural technology.

55812 Programmes in landscape architecture

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, consisting of classroom, laboratory and practical demonstrations dealing with the principles and practices of landscape architecture. These programmes emphasize the technological and practical aspects of landscape architecture rather than the theoretical and scientific principles involved.

Principal course content usually includes, i.e., the history of landscape architecture, landscape graphics and drafting, earth grading, drainage, planting techniques, and selected courses in agricultural technology such as soil chemistry, fertilizer technology, arboriculture, floriculture, etc. Background courses usually include some study of town planning techniques, civil engineering technology, selected natural sciences, social sciences, and commercial or business subjects.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature applicants with relevant work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in landscape architecture.

55822 Programmes in town or community planning

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, consisting of classroom, laboratory and practical demonstrations dealing with the principles and practices of town or community planning. These programmes deal primarily with the technological and practical aspects of community planning rather than with the underlying theoretical and scientific principles.

Principal course content usually includes, i.e., the history of modern urban development, typical urban planning projects, social and institutional factors involved in physical urban planning, the rôle of urban transportation systems, construction of models using various materials, the graphics of community development. Most programmes of this kind also involve study of relevant specialities in sociology, economics, psychology, structural architecture, mathematics, civil engineering, and geography. Some programmes also include statistics, computer programming and systems design.

Usual minimum educational prerequisite is completion of second level education, second stage, but mature applicants with relevant work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in town or community planning.

562 Agricultural, forestry and fishery programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, designed to impart theoretical and practical knowledge of the agricultural, forestry or fishery operations required to engage in such operations as owner or manager of a medium- or small-scale enterprise or for employment as a technician. Although theory is not ignored, typically in these programmes attention is directed toward courses stressing the application of technology in relevant operations rather than the theoretical, general and scientific principles of the subjects studied.

Important kinds of programmes included are those dealing with animal husbandry; crop husbandry; horticulture; soil and water technology; agricultural economics and farm management; health of animals; food technology (e.g. dairying, fruit processing); management and utilization of forest resources including watersheds, wildlife and recreational areas; management, utilization and conservation of fishery resources. Background courses usually required include some natural sciences such as biology and chemistry; some social sciences such as economics and sociology; some mathematics and statistics. (Note that agricultural and forestry engineering technology programmes are included in field 554 - Engineering programmes.)

Programmes and courses may be full-time or part-time, and usually include practical demonstration as well as student participation in relevant operations either as an employee or in practice sessions. (Refresher courses are common.) These programmes are sponsored and conducted by many kinds of agencies - both public and private - including institutes of technology, specialized training centres, research and development agencies, co-operative societies, etc.

Usual minimum educational prerequisite is completion of second level education, second stage, but mature students, especially those with relevant work experience, are often admitted with lower educational qualifications. In all cases, however, some second level education will be found essential, the important factor being ability to master the varied subject-matter content at this level.

Usual award for successful completion of a programme is a diploma or certificate indicating the kind of programme involved.

56201 General programmes in agriculture

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and field instruction dealing with the principles and practices of agriculture at the production level.

Principal course content usually includes some of the following : hay and pasture crops, grain and miscellaneous crops, vegetable and fruit crops, ornamental horticulture, agricultural botany, agricultural zoology, agricultural microbiology, livestock improvement, animal feeds, weed control, pest control, farm management. Background courses often included are zoology, chemistry, animal diseases, botany, marketing, and agricultural engineering.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in agricultural technology.

56203 Animal husbandry programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and field instruction dealing with the principles and practices of animal husbandry.

Principal course content usually includes some of the following : animal anatomy and physiology, animal breeding, livestock production, animal pathology, animal nutrition, poultry breeding and poultry products technology. Background courses usually include zoology, microbiology, chemistry, marketing and farm management.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in agricultural technology.

56208 Crop husbandry programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and field instruction dealing with the principles and practices of crop husbandry.

Principal course content usually includes some of the following : field crop production, forage crops, grain crops, cropping systems, pest control, weed control, soil science and soil preparation. Background courses usually include marketing, entomology, chemistry, botany, plant pathology and farm management.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in agricultural technology.

56212 Agricultural economics programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and field instruction dealing with the principles and practices of agricultural economics.

Principal course content usually includes some of the following : principles of agricultural economics, principles of marketing, farming systems, farm management and production economics, accounting and financial records, agricultural policy, and farm credit policy. Background courses usually include mathematics, principles of economics, crop husbandry, animal husbandry and agricultural engineering.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in agricultural economics.

56226 Soil and water technology programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and field instruction dealing with the principles and practices of soil and water technology.

Principal course content usually includes some of the following : principles of soil science, soil classification, soil analysis, soil management systems, soil and water conservation. Background courses usually include forest soils management, hydrology, hydrogeology, water purification, water transportation, mathematics, economics and chemistry.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a diploma or certificate in soil and water technology.

56232 Animal health programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and field instruction dealing with the principles and practices of animal health.

Principal course content usually includes some of the following : principles of veterinary medicine, veterinary anatomy, veterinary pathology, pharmacology and parasitology, elements of veterinary surgery and veterinary public health. Background courses usually include : animal science, animal breeding, animal selection and evaluation, genetics, livestock nutrition, chemistry, mathematics, and general biology.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in animal health.

56249 Other programmes in agriculture

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and field instruction dealing with the principles and practices of an agricultural programme not covered by any of the above programme groups.

Principal course content will be related to the speciality, for example, apiculture, sericulture, and other insect cultures; fur farming; mushroom growing; growing of trees for their sap, as rubber production or maple sugar production. In all these programmes, general agricultural courses are included along with background courses such as biology, botany, entomology, chemistry, marketing, business management and accountancy.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in agricultural technology.

56262 Forestry and forest product technology programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and field instruction dealing with the principles and practices of forestry and forest product technology.

Principal course content usually includes some of the following : general forestry, silviculture, wood technology, forest scaling, forest entomology, fire control, forest improvement, forest cropping and woodlot management. Background courses usually include : general botany, surveying, photogrammetry, lumber grading, forest road technology, bookkeeping and marketing of forest products.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in forestry.

56272 Fishery programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and field instruction dealing with the principles and practices of fishery.

Principal course content usually includes some of the following : elements of fishery technology, fish culture, fish propagation, fishing gear technology, fish detection, and fishery aspects of water pollution. Background courses usually include : marine biology, oceanography, ichthyology, seamanship, marine law; fish processing and fishery law and regulation.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in fisheries technology.

566 Home economics (domestic science) programmes

This field includes a variety of programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily concerned with studies in home economics, including household arts. In these programmes, attention is directed toward the practical application of the subjects included rather than to the underlying theory or general principles involved.

Principal kinds of programmes include those dealing with general home economics, those emphasizing household food management and nutrition, those emphasizing child care and family well-being, those emphasizing household arts such as interior decoration, clothing design and dressmaking, household management and budgeting, etc. These programmes cover a variety of subject matter in the natural sciences, social and behavioural sciences, the fine arts and humanities, the subjects being chosen in accordance with the various specialities included.

Programmes may be full-time or part-time, day or evening. The full-time programmes are generally conducted in institutes of technology, technical colleges, or community colleges, as are some of the part-time programmes. Other part-time programmes may be held in community centres, co-operatives, and the like. The programmes are sponsored by a wide variety of agencies.

Usual minimum educational prerequisite is completion of second level education, second stage. Particularly for the shorter programmes, mature applicants having relevant experience may be admitted with somewhat lower educational qualifications.

Usual award for successful completion of a programme is a certificate or diploma.

56601 General home economics (domestic science) programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory sessions dealing with the applications of science to problems connected with the running of homes and institutions and home economics extension programmes.

Principal course content usually includes, i.a., foods, nutrition, and diet; child development and psychology; clothing and textiles; family life and home and institutional management. Background courses often included are psychology, economics, sociology, mathematics, and biology, chemistry and organic chemistry.

Periods of practical work in institutions and in working with families are often emphasized. Greater weight is assigned to practical results than to the pursuit of theory. Programmes are typically given in colleges or in technological or similar institutes, and last one year or more. However, many of the programmes are specialized in one or two subjects and may last only three or four weeks.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature applicants, especially those with relevant work experience, are often admitted with lower qualifications, particularly to sandwich courses and courses designed to upgrade the qualifications of those already employed.

Usual award for successful completion of a programme is a certificate or diploma.

56612 Programmes with emphasis on household food management and nutrition

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory sessions dealing with the applications of science to problems connected with the running of homes and institutions.

Principal course content usually includes specialized subjects such as foods, nutrition, and diet; experimental foods; food service; food chemistry; and general home and institutional management. Background courses often included are chemistry, organic chemistry, biology, sociology, economics, mathematics, and physics.

Periods of practical work in institutions are often emphasized. Greater weight is assigned to practical results than to the pursuit of theory. Programmes are typically given in colleges or in technological or similar institutes, and last one year or more. However, many of the programmes are specialized in one or two subjects and may last only three or four weeks.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature applicants, especially those with relevant work experience, are often admitted with lower qualifications, particularly to sandwich courses and courses designed to upgrade the qualifications of those already employed.

Usual award for successful completion of a programme is a certificate or diploma.

56622 Programmes with emphasis on child care

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory sessions dealing with the applications of science to problems connected with the running of homes and institutions.

Principal course content usually includes, i.a., specialized courses in child psychology and development; nursery equipment and activities; pre-school education methods; nursery education practice; parent education; and foods and nutrition. Background courses often included are psychology, sociology, biology and chemistry.

Periods of practical work in institutions are often emphasized. Greater weight is assigned to practical results than to the pursuit of theory. Programmes are typically given in colleges or in technological or similar institutes, and last one year or more. However, many of the programmes are specialized in one or two subjects and may last only three or four weeks.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature applicants, especially those with relevant work experience, are often admitted with lower qualifications, particularly to sandwich courses and courses designed to upgrade the qualifications of those already employed.

Usual award for successful completion of a programme is a certificate or diploma.

56632 Programmes with emphasis on household arts

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory sessions dealing with the applications of science to problems connected with the running of homes and institutions.

Principal course content usually includes specialized courses in art and design; dress design, flat pattern making, and dressmaking; home furnishing; house planning, and home management. Background courses often included are mathematics, sociology, economics, history and languages. Periods of practical work in institutions are often emphasized. Practical results are considered more important than the pursuit of theory. Programmes are typically given in colleges or in technological or similar institutes and last one year or more. However, many of the programmes are specialized in one or two subjects and may last only three or four weeks.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature applicants, especially those with relevant work experience, are often admitted with lower educational qualifications, particularly to sandwich courses and courses designed to upgrade the qualifications of those already employed.

Usual award for successful completion of a programme is a certificate or diploma.

56699 Other home economics programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, not included in the preceding home economics programme groups (i.e. 56601 to 56632), primarily consisting of classroom and laboratory sessions dealing with the applications of science to problems connected with the running of homes and institutions and home economics extension programmes.

Principal course content depends on the particular area of specialization or courses may be combined in some unusual way to reflect a specialized programme. In addition, courses in chemistry, biology and physics are often included.

Periods of practical work in institutions are often emphasized. Practical results are considered more important than the pursuit of theory. Programmes are typically given in colleges or in technological or similar institutes, and last one year or more. However, many of the programmes are specialized and may last only three or four weeks.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature applicants, especially those with relevant work experience, are often admitted with lower educational qualifications, particularly to sandwich courses and courses designed to upgrade the qualifications of those already employed.

Usual award for successful completion of a programme is a certificate or diploma.

570 Transport and communications programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and practices of subjects in the technology of transport and communications operations. In these programmes, attention is directed mainly toward the practical application and technological aspects of the subjects included rather than toward the underlying theory of general principles.

Principal kinds of programmes included are those dealing with the technology of air crew operations, including air piloting, navigation, and service to passengers in flight; ships' officer programmes, such as those required for deck and engineering officers, programmes for other ships' personnel; railway operating trades programmes such as those for engine drivers, conductors, dispatchers, etc.; road motor vehicle operating programmes; programmes in the installation and maintenance of communications equipment; postal service programmes, and other communications programmes such as those in telegraphy, etc. A programme in any of these subject areas usually contains some background courses in related subjects in the natural sciences, social and behavioural sciences, commercial and business administration, mathematics and statistics, selected in accordance with the programme's particular speciality.

Programmes may be full-time or part-time, day or evening. Full-time programmes are generally conducted in institutes of technology, technical colleges, or community colleges, as are some part-time programmes. Other part-time programmes are often conducted in special schools set up by transport authorities, professional societies, and the like. Although full-time programmes generally last for more than one year, the part-time ones are often of short duration, i.e. a few months, and tend to be of the retraining, refresher, and sandwich course type.

Usual minimum educational prerequisite is completion of second level education, second stage. Especially in the case of shorter programmes, some applicants may be admitted with lower educational qualifications upon demonstration of ability to handle the subject matter.

Usual award for successful completion of a programme is a certificate or diploma, usually indicating the kind of programme involved.

57002 Air crew programmes

Programmes at the third level: first stage, of the type that leads to an award not equivalent to a first university degree, consisting of lectures, classroom or group discussion and on-the-job experience designed to provide training in air crew activities. Although some consideration is given to the theoretical aspects of flight and aircraft operation, the programmes' main emphasis is on the practical skills and knowledge required for air crew personnel.

Principal course content usually includes, i.e., communications procedure; flight procedure; the operation of communications and navigation equipment; navigation; physics; electronics; mathematics. Periods of apprenticeship are a compulsory feature of these programmes.

Programmes, usually full-time, last from one to three years in institutes of technology, special institutes for the training of air crews, or sponsored by government departments or agencies. Applicants must demonstrate physical fitness, and maximum and minimum age limitations may be imposed.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature applicants, with relevant work experience, may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

57004 Ships' officer programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, consisting of instruction and laboratory work designed as the theoretical complement of extensive practical experience aboard ship. These programmes are aimed to cover the theory, principles, and knowledge required for operating a ship, and to provide training in regulations concerning ship management, hull inspection, public harbours, navigational aids, etc. The end purpose of the programmes is to qualify candidates as masters or first engineers of a ship; lesser qualifications are acquired gradually in the process.

Programmes are typically given partly on board ships and partly in nautical or technological institutes. Programmes are often restricted to one or two subjects and may last only a few weeks.

Principal course content usually includes, i.a., general shipboard knowledge; navigation; pilotage; ship maintenance; routine and cargo work; communications; ship construction and stability; shipmaster's activities; marine engineering; electricity; damage control; watertight integrity; meteorology; naval architecture; and other subjects designed to provide a broad foundation of skills and knowledge related to ship management and operation.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications, and provision may be made for upgrading their educational levels while they are participating in the programmes. Admission to the engineering branches may require completion of apprenticeship programmes or the equivalent.

Usual award for successful completion is a certificate.

57006 Railway operating trades programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, consisting of lectures, classroom or group discussion, and on-the-job experience designed to provide training for railway operating personnel. Although some consideration may be given to the theoretical aspects of railway systems and organization, the programmes' main emphasis is on the basic practical skills and knowledge required.

Programmes, usually full-time, may require from one to three years' study in an institute of technology, a special institute for the training of railway operators, or a government department or agency, and they include an apprenticeship period.

Principal course content usually includes, i.a. diesel mechanics, dynamics, communications.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature applicants with relevant work experience may be admitted with lower educational qualifications. Applicants must demonstrate physical fitness, and specifically must meet eyesight and hearing requirements. There may also be maximum and minimum age limitations.

Usual award for successful completion is a certificate or diploma.

57008 Road motor vehicle operation programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, consisting of lectures, classroom or group discussion, and on-the-job experience, designed to train road motor vehicle operators. The programmes' main emphasis is on the practical skills and knowledge required for road motor vehicle operators.

The programmes, usually full-time, may take up to one year's study, and are given in an institute of technology, in special institutes for the training of road motor vehicle operators, or are established and run as part of a government department. In addition, a period of apprenticeship is usually required.

Principal course content usually includes such subjects as highway regulations, safety rules, basic vehicle maintenance, vehicle control, vehicle insurance, highway conditions, etc.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature applicants with relevant work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

57022 Programmes on installation and maintenance of communications equipment

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, consisting of lectures, classroom or group discussion, and on-the-job experience, designed to provide training in the installation and maintenance of communications equipment. Although consideration is given to the theoretical aspects of electricity and electronics, the programmes' main emphasis is on practical skills and knowledge.

The programmes, usually full-time, may require one to three years; they are given in institutes of technology or special institutes, or are established and conducted as part of a government department. They generally feature a period of apprenticeship.

Principal course content usually includes such subjects as electronics; electricity; communications procedure; communications equipment; physics; and mathematics.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature applicants with relevant work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

57026 Postal service programmes, n.e.c.

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, consisting of lectures, classroom or group discussion, and on-the-job experience, designed to provide training in post office operations. Although consideration is given to the theoretical aspects of the postal service, the programmes' main emphasis is on basic practical skills and knowledge.

The programmes, usually full-time, may require one to three years' study; they are given in technological or special institutes, or may be established and conducted as part of a government department. They generally feature a period of apprenticeship.

Principal course content usually includes such subjects as basic management, accounting, sorting, application of new technology to postal procedures, etc.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature applicants with relevant work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

57029 Other communications programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, consisting of lectures, classroom or group discussion, and on-the-job experience designed to provide training in communications other than that defined elsewhere in 570 or 599. Although consideration is given to the theoretical aspects of communications, the main emphasis of the programmes will be on basic practical skills and knowledge.

The programmes usually full-time, may require one to three years' study. They may be given in technological or special institutes, or be established and conducted as part of a government department. They generally feature a period of apprenticeship.

Principal course content usually includes the study of the various aspects of a particular trade.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature applicants with relevant work experience may be admitted with lower educational qualifications. Applicants may be required to demonstrate physical fitness, and there may be maximum and minimum age limitations.

Usual award for successful completion is a certificate or diploma.

574 Trade, craft, and industrial programmes, n.e.c.

This field includes a variety of programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and the laboratory and workshop methods in trades, crafts, and industrial processes not elsewhere classified. These programmes are designed to prepare students for careers as relatively high-level technicians in construction operations, industrial operations of various kinds, installation and repair activities, and in a variety of craft or trade operations.

The principal kinds of subject matter usually included depend to some extent on the particular speciality of the student, but some basic subject matter is common to this kind of programme, e.g. natural sciences such as physics and chemistry, mathematics, shop practice, hand- and machine-tool operation, and work hazards and safety. In general, the practical aspects and applications of the subjects studied are stressed rather than their theoretical, scientific or general bases. Programmes of this kind are often

of the "sandwich" type, i.e. periods of study are alternated with periods of work in industrial or other enterprises.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with relevant work experience may be admitted with lower educational qualifications, especially to relatively short-term programmes. Practical demonstration, field work and shop work form an essential part of these programmes, which are usually conducted in institutes of technology or technological colleges and which are sponsored by a wide variety of agencies.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

S7402 Industrial and domestic electricity programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice, dealing with the applications of electricity and the installation, operation and maintenance of electrical equipment, machinery and appliances in factories, buildings, and homes.

Principal course content usually includes some of the following : fundamentals of electricity; industrial electronics; shop practice; electric power and illumination; electrical test equipment; installation, repair and maintenance of electrical machines; transmission and distribution of electric power. Stress is laid on the achievement of practical competence and skill. Programmes often consist of periods of study alternating with periods of work in industrial and other enterprises (sandwich courses).

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with relevant work experience may be admitted with lower educational qualifications, especially into programmes designed to upgrade the performance of those already employed.

Usual award for programmes of one year or more, typically given in technological or similar institutes, is a certificate or diploma of industrial electrical technology issued by the institute and sometimes by the examining board of a professional or technical organization. For short courses, many of which are sponsored by employers or employers' associations, a certificate of satisfactory completion is usually awarded.

57404 Electronics equipment installation and servicing programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice, dealing with applications of electronics and with the installation and servicing of electronic equipment such as radio and television apparatus, electronic controls, electronic computers, and electronic navigation aids.

Principal course content usually includes the fundamentals of electricity, principles of electronics, special electronic circuitry, electronic components, electronic test equipment, physics, mathematics, and shop practice. Emphasis is given to the achievement of practical competence and skill. Programmes often consist of alternating periods of study and work in industrial and other enterprises (sandwich courses).

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications, especially into programmes designed to upgrade the performance of those already employed.

Usual award for programmes of one year or more, typically given in technological or similar institutes, is a certificate or diploma from the institution or from the examining board of a professional or technical organization. For short courses, many of which are sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given.

57408 Programmes in mechanic and repair trades, n.e.c.

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice dealing with the maintenance and repair of machinery and mechanical devices such as motor vehicles, aircraft, heavy-duty construction equipment, agricultural machinery and equipment, mining machinery, etc.

Principal course content usually includes some of the following : mechanics of solids, fluids and gases; hydraulics, pneumatics ; overhaul and repair of internal combustion engines; the use of machine- and hand-tools; machine design; overhaul and repair of various kinds of machinery;

and diagnosis of faults in machines and equipment. Emphasis is placed on the achievement of practical competence and skill. Programmes often consist of alternating periods of study and work in industrial and other enterprises (sandwich courses).

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications, especially into programmes designed to upgrade the performances of those already employed.

Usual award for programmes of one year or more, typically given in technological or similar institutes, is a certificate or diploma issued by the institution or by the examining board of a professional or technical organization. For short courses, many of which are sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given.

57412 Metal trades programmes, n.e.c.

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice, dealing with the shaping, treating, cutting, testing, etc., of metals as done in machine shops, sheet metal shops, welding shops and foundries.

Principal course content usually includes some of the following : fundamentals of metallurgy; blueprint reading; strength of metals; use of testing equipment; elementary physics; work programming; machine shop practice; layout of work; foundry practice; sheet metal work; tool and diemaking. Emphasis is placed on the achievement of practical competence and skill. Programmes often consist of alternating periods of study and work in industrial and other enterprises (sandwich courses).

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications, especially into programmes designed to upgrade the performance of those already employed.

Usual award for programmes of one year or more, typically given in technological or similar institutes, is a certificate or diploma issued by the institution or by the examining board of a professional or technical organization. For short courses, many of which are sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given.

57422 Food processing and service programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice, dealing with the industrial, commercial and similar processing and serving of food.

Principal course content usually includes some of the following : biology; chemistry; theory and principles of food processing; sanitation; nutrition; menu planning; quantity food preparation and processing; food handling and serving; food purchasing; test cooking; food preservation; business management; human relations; merchandising; and the technology of cooking equipment. Emphasis is placed on the achievement of practical competence and skill. Programmes often consist of alternating periods of study and work in industrial and other enterprises (sandwich courses).

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications, especially into programmes designed to upgrade the performance of those already employed.

Usual award for programmes of one year or more, typically given in technological or similar institutes, is a certificate or diploma. For short courses, many of which are sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given.

57432 Textile technology programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice, dealing with the properties and uses of natural and man-made textile fibres, and the production of materials and other products from natural and man-made fibres.

Principal course content usually includes some of the following : characteristics and classification of natural and man-made fibres and filaments; textile dyeing; production of man-made filaments and fibres; preparation of natural fibres for processing; operation and maintenance of spinning or twisting and of weaving machinery; filament and textile testing; weaving techniques;

including jacquard and other methods; quality control in textiles; organic chemistry; and mathematics. Emphasis is given to the achievement of practical competence and skill. Programmes often consist of alternating periods of study and work in industrial and other enterprises (sandwich courses).

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications, especially into programmes designed to upgrade the performance of those already employed.

Usual award for programmes of one year or more, typically given in technological or similar institutes, is a certificate or diploma issued by the institution or by the examining board of a professional or technical organization. For short courses, many of which are sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given.

57442 Graphic arts programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice, dealing with the principles and practices of printing and photography.

Principal course content usually includes some of the following : printing processes; letterpress; lithography; rotogravure; silk-screen process; typography; photoengraving; types of paper and uses; printing materials; colour vision and methods of colour reproduction; camera and other photographic techniques, including both still photography and cinematography. Emphasis is given to the achievement of practical competence and skill. Programmes often consist of alternating periods of study and work in industrial and other enterprises (sandwich courses).

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications, especially into programmes designed to upgrade the performance of those already employed.

Usual award for programmes of one year or more, typically given in technological or similar institutes, is a certificate or diploma issued by the institution or by the examining board of a professional or technical organization. For short courses, many of which are sponsored by employers or employers' associations, a certificate of satisfactory completion is usually awarded.

57452 Optical-lens-making programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice, dealing with the technology of optical-lens-making.

Principal course content usually includes some of the following : light dispersion, interference, polarization, refraction and diffraction; properties of materials used for lens-making; geometrical optics; materials used for lens-grinding; methods and equipment used for lens-grinding; centering, edging, mounting, and testing of lenses; nature and function of optical equipment; lens systems; compounding lenses; elementary physics; and mathematics. Emphasis is placed on the achievement of practical competence and skill. Programmes often consist of alternating periods of study and work in industrial and other enterprises (sandwich courses).

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications, especially into programmes designed to upgrade the performance of those already employed.

Usual award for successful completion of programmes of one year or more, typically given in technological or similar institutes, is a certificate or diploma issued by the institution or by the examining board of a professional or technical organization. For short courses, many of which are sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given.

57462 Laboratory technician programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice, dealing with the

principles and practices involved in making, setting up and repairing scientific laboratory equipment, instruments and machines.

Principal course content usually includes some of the following : basic natural sciences; machining, shaping and other fine mechanical processing in metal, wood, plastics, glass, etc.; calibrating of instruments; instrument repair; laboratory safety; collection handling, preservation, disposal and shipment of specimens; instrumentation; sterilization and disinfection; manipulation of laboratory glass and plastic ware. Emphasis is given to the achievement of practical competence and skill in the laboratory. Programmes often involve alternating periods of study and work in scientific laboratories to develop the required competence.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with laboratory experience and demonstrated aptitude may be admitted with lower educational qualifications.

Usual award for the completion of programmes of one year or more, typically given in technological or similar institutes, is a certificate or diploma issued by the institution or by an examining board. For short courses, a certificate of satisfactory completion is often given.

57499 Other trade, craft and industrial programmes, n.e.c.

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice, dealing with the principles and practices of trade, craft and industrial processes not covered by the above group definitions (i.e. 57402 to 57462).

Principal course content includes some background subjects common to programmes of this kind, e.g. natural sciences including physics and chemistry; mathematics; shop practice; hand- and machine-tool operation; and work hazards and safety. Other subjects depend on the student's speciality and in all cases the practical aspects and applications of the subject are stressed. Programmes dealing with industrial processes often include some courses in production methods, quality control, record-keeping methods, and industrial management.

Many programmes are of the sandwich type, i.e. they consist of alternating periods of study and of work in industrial and other enterprises.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications.

Usual award for programmes of one year or more, typically given in technological or similar institutes, is a certificate or diploma issued by the institution or by the examining board of a professional or technical organization. For short courses, many of which are sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given.

599 Other programmes of education at the third level : first stage, of the type that leads to an award not equivalent to a first university degree

This field includes programmes at this level not included in the above list of fields, i.e. 514 to 574. Examples of programmes included here are those dealing with journalism, radio and television broadcasting, public relations, other communications arts; police work and related law enforcement, fire protection and fire fighting, military science, other civil security; library techniques, the technology of museums and similar repositories, documentation technology, social work, vocational counselling, etc. In these programmes, attention is directed typically toward the practical application of the subjects included rather than toward the underlying principles or philosophies.

Programmes may be full-time or part-time, day or evening. Many are of relatively short duration, i.e. less than one year, and they include retraining, refresher, and sandwich courses. The majority of these programmes are given in technological institutes, technical colleges, etc., but many are provided in special schools including military academies, police schools, and the like. The programmes are sponsored by a wide variety of organizations.

Usual minimum educational prerequisite is completion of second level education second stage. For programmes designed for those already employed and for intensive short courses, applicants may be admitted with lower educational qualifications when work experience and maturity indicate ability to handle the material.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

59902 Programmes in journalism

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction, group discussion and practice sessions, dealing with the principles and practices of journalism. Periods of practical work on newspapers or periodicals, including work in their editorial offices, usually constitute part of these programmes. Some programmes at this level are specialized in subject content and may last only three or four weeks. The practical aspects of journalism rather than its theory are usually stressed.

Principal course content usually includes current affairs; political science; the place of the press in modern society; modern news reporting; editorial practice and policy; government regulation of the mass media. Courses in shorthand and typewriting may be offered, as may courses in modern printing techniques, photography and reproduction techniques.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications. For short courses, sandwich courses and courses designed to upgrade the qualifications of those already employed, work experience is usually given greater weight than educational qualifications.

Usual award for successful completion of a programme is a certificate or diploma.

59904 Programmes in radio and television broadcasting

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction, group discussion and practice sessions, dealing with the principles and practices of broadcasting as one part of the field of mass communication. Periods of practical work in studios and broadcasting offices and workshops are usually included. Many of the programmes are specialized in subject content and may last only three or four weeks. The practical aspects rather than the theory of broadcasting are emphasized.

Principal course content usually includes study of the rôle of electronic media in modern society; broadcast journalism; the art and craft of radio and television production; government control of broadcasting; script writing; principles of criticism; and the ethics of mass communication.

Usual minimum educational prerequisite is completion of education at the second level, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications. For short courses, sandwich courses and courses designed to upgrade the qualifications of those already employed, work experience is usually given greater weight than educational qualifications.

Usual award for successful completion is a certificate or diploma.

59907 Public relations programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom or practice sessions and group discussion dealing with the principles and practices of public relations.

Principal course content includes a number of courses in the liberal arts and social sciences, as well as prescribed courses in creative writing and the effective use of language; introductory business; marketing; the use of the mass media; industrial promotion; advertising; business psychology; conducting and interpretation of public opinion surveys, etc. Programmes usually require two years' full-time study in a college of applied arts and/or technology, or in the communications school of a university.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with related work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate.

59909 Other programmes in communications arts

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, designed to train technicians or para-professionals in communications arts other than those defined above (i.e. 59902, 59904 and 59907).

Principal course content usually includes a number of liberal arts and social science courses, in addition to various prescribed courses. Programmes usually require two years' full-time study in a college of applied arts, communications, or technology, or an equivalent institute.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with relevant work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

59912 Programmes in police work and related law enforcement

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom sessions and group discussion dealing with specialized training in police work, law and security administration and enforcement.

Principal course content usually includes, i.e., introduction to law enforcement; first aid and rescue operations; the use and care of police equipment; narcotics and drug abuse; laws of evidence and court procedures; criminal investigation; traffic control and administration; police administration; criminal law and legal procedures; crime and delinquency; police operations; the ethics of security administration; language and communications; social and behavioural sciences; human relations.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature applicants with relevant experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

59915 Fire protection and fire-fighting programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom sessions and practical exercises dealing with the principles and

techniques of fire fighting.

Principal course content usually includes, i.a., the history of fire fighting; fire protection in buildings; fire-escape facilities; the structural stability of buildings; interior finishes and furnishings; fire-extinguishing appliances; automatic fire-alarm systems; automatic sprinkler systems; special automatic extinguishing systems; steam fire engines and motor fire engines; fireboats; ladder rescue equipment, including aerial ladders, snorkels, other rescue equipment; fire department organization; fire research; first aid.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with relevant experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

59917 Military programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom sessions, group discussion and drill, dealing with the fundamentals of military science.

Principal course content usually includes, i.a., organization of the armed forces; weapons and marksmanship; military history and logistics; army administration; military law; service orientation; counter-insurgency training; operations; small unit tactics; leadership; pre-camp orientation; branches of the armed forces; communications; map and aerial photograph reading; social and behavioural sciences.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature applicants with relevant experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in military science. The award may also include a promotion in military rank.

59919 Other programmes in civil security

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom sessions, and group discussion dealing with specialized training in public security, designed to provide training for commissionaires or security guards.

Principal course content usually includes, i.a., the essentials of law enforcement; first aid; building supervision; power outlet checking; various locking devices used in public buildings; electric and electronic alarms; the ethics of security administration; fire hazards; fire escapes; traffic control; crime and delinquency; record keeping; visitor guidance; human relations; social and behavioural sciences.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature candidates, especially those with relevant experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate in civil security.

59922 Library technician programmes

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and practices of library technology. Theoretical and historical principles of library science are given less prominence in these programmes than are such techniques as library cataloguing, record storage, record retrieval, etc., dealing with all types of records including microfilm, magnetic tape, etc.

Principal course content usually includes, i.a., library reference and special services, acquisitions, cataloguing and classification, special collections, data processing, typing, the operation of business machines, and library structure and organization. Background courses usually include selected humanities, social sciences, natural sciences, etc., according to the interests of the student.

Programmes, usually full-time, are conducted in technical colleges or schools, and require up to two years. Some programmes, particularly those dealing with special libraries such as medical, legal, or scientific libraries, may be part-time and of shorter duration (less than one year), and are often attended by experienced general library technicians.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with related work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

59925 Programmes for technicians in museums and similar repositories

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, designed to train assistants for museums, archives, art galleries and similar repositories.

Principal course content usually includes, i.a., courses in related liberal arts fields such as history, anthropology, the fine arts, and archaeology, in addition to such prescribed courses as cataloguing, classification, the care and handling of ancient manuscripts, maps, government documents, data processing, restoration and exhibiting of specimens, of art, etc.

Programmes, usually full-time, are conducted in technical colleges or schools, and require up to two years.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with relevant work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

59929 Programmes for documentation personnel, n.e.c.

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and practices of documentation work in government, industry or educational institutions.

Principal course content includes a number of prescribed and/or optional courses (possibly with an area of specialization) in such subjects as office practice, typing, filing; accounting; cataloguing and classification; business machines; data processing; information retrieval systems; administrative organization; and statistics.

Programmes, full-time for one or two years, are usually given in schools or colleges of business or technology, or in the institution of employment, and consist primarily of classroom sessions and periods of supervised work practice. Short programmes, often part-time, are provided in the form of refresher or sandwich courses.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students with related work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

59932 Programmes in social work

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and practices of social welfare work. The practical aspects of case work and group work are stressed in these programmes, with little time spent on the theoretical or historical aspects of the subjects included.

Principal course content includes, i.e., such subjects as case work techniques, human development, social service resources, social problems, group work processes, community and clinical psychology, and sociology.

Programmes, full-time for one or two years, are usually given in schools or colleges of technology and consist of lectures, discussion groups and field work under the supervision of an experienced social worker. Some short programmes, often part-time, are provided in the form of refresher courses.

Usual minimum educational prerequisite is completion of second level education, second stage, and often some related work experience.

Usual award for successful completion is a certificate or diploma.

59942 Programmes in vocational counselling

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom sessions, group discussion and practical work involving the observation of counselling procedures and supervised participation in the latter. These programmes are concerned with principles and their application in counselling, designed to enable people to assess their assets and shortcomings with respect to potential occupations so as to make satisfactory vocational decisions.

Principal course content usually includes courses on child and adolescent development; learning and motivation; vocational development; human relations and communication; information utilization and decision-making; interviewing and modification. Emphasis is usually placed on the techniques of devising and using tests.

Programmes, generally full-time, require at least one year's study. Short programmes, often part-time, are provided in the form of refresher and sandwich courses designed to upgrade the qualifications of those already employed - for example, teachers, social workers, personnel officers and placement officers.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a certificate or diploma.

59952 Programmes in environmental studies

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, designed to develop awareness of the environment and of the ways in which a multiplicity of factors affect its condition. Attention is given to methods for the protection and rehabilitation of the environment.

Through lectures, seminars, demonstrations, usually involving a multi-disciplinary approach, a background is provided in subjects such as the study and control of pollution; the protection of the environment; the conservation of natural resources. Programmes consist of special courses drawn from the social, biological and physical sciences and their applications. Study tours and visits to particular locations may be arranged.

Programmes are usually of one or two years' duration, part-time or full-time; day or evening. Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

59962 Programmes in physical education

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, designed to increase physical strength, agility, grace of movement, athletics and sports are developed. Often the aim is spiritual and moral improvement in the individual through physical excellence and control of the body.

The theoretical part of the programmes includes study of human anatomy and physiology, natural science, social and behavioural science, first aid. Attention may be paid to the history of physical education in different cultures. Stress is laid on sports of all kinds and on field athletics, as well as on gymnastics and eurythmics. Students are normally expected to select two or three areas in which they attempt to achieve excellence; e.g. football, running, jumping, dancing, hockey, kendo, judo, etc. Competitive sports may or may not be encouraged.

Programmes are usually at least two years in duration, part-time or full-time.

Usual minimum educational prerequisite is completion of second level education, second stage. The programmes are normally offered in colleges of physical education or community colleges or technical colleges; sometimes in universities.

Usual award for successful completion is a certificate or diploma.

59999 Other programmes of education at the third level ; first stage, of the type that leads to an award not equivalent to a first university degree, n.e.c.

Programmes at the third level : first stage, of the type that leads to an award not equivalent to a first university degree, designed to train technicians or para-professionals in fields other than those defined above (i.e. in 59902 to 59962). The emphasis in these programmes is on the practical rather than the theoretical aspects.

These programmes usually last two years full-time in an appropriate college or institute of technology, and consist of lectures, group discussion, field work, laboratory sessions, and various prescribed courses.

Usual minimum educational prerequisite is completion of second level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

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6. EDUCATION AT THE THIRD LEVEL : FIRST STAGE,
OF THE TYPE THAT LEADS TO A FIRST UNIVERSITY
DEGREE OR EQUIVALENT

The "core" at this level consists of programmes of education for those who have completed requisite programmes at the second level, second stage, and who choose to continue their education in a type of programme that is generally provided by a university. Typically, much time is spent on the historical aspects of the subjects taught, while practical skills, though often given some prominence, have a lower priority. The importance of research is stressed by preparing students for participation in original work. These programmes require a minimum of four years' full-time study, many requiring five or six years', and a few seven years'. The earlier years (usually the first or the first two) are sometimes provided in local colleges or in secondary schools, but these programmes are distinguishable from others in that they are recognized by a university as the equivalent of the corresponding university programme when a student transfers to the university.

A great variety of subject-matter programmes is offered at this level, the university being organized by subject into "departments", "faculties" or "schools" under such headings as Agriculture; Arts (Humanities, Letters); Education; Engineering; Fine Arts; Law; Business Administration (Commerce); Medicine; Pharmacy; Natural Science; Social Science; Theology (Religion). Students choose a programme within one faculty but the programme will often contain some courses given in another faculty or faculties. In some cases also, the same programme, often with somewhat different emphasis, is given in more than one faculty, e.g. pharmacology in Natural Science and in Medicine; plant pathology in Agriculture and in Natural Science; marketing in Social Science (Economics) and in Business Administration. For the purposes of ISCED, however, a particular subject-matter programme is assigned to only one field on the basis of its usual or principal association.

At this level the "core" comprises the great majority of the programmes in many countries. Important national differences in university organization and in degree-granting practices as well as changing practices within countries in recent years must be taken into account, however, if reasonably comparable data are to be obtained.

The term "first university degree" requires clear definition for ISCED purposes. It includes, of course, programmes leading to the usual first degrees such as bachelor of arts, bachelor of science, *diplôme*, etc., as well as first professional degrees like those of bachelor of law, bachelor of medicine (in some countries), and others that are frequently taken as first degrees after three, four or five years of study following a non-degree programme of pre-professional study, i.e. a total of as many as seven years in all, e.g. doctor of medicine (in some countries). Similarly, programmes designed for the simultaneous conferring of two degrees (e.g. B.A. and B.Comm. or B.A. and LL.B.) are classed as at this level.

Increasingly, programmes formerly conducted mainly outside of universities in some countries have been moving into their university systems. Important examples are programmes leading to such professions as those of engineer, accountant, actuary, barrister and solicitor, pharmacist. The situation as between countries has always been mixed, leading to problems in international

comparisons, while the fluidity within individual countries can be a source of inconsistency in national statistics over a number of years. For the purposes of ISCED, therefore, programmes conducted outside of the university system, sponsored by a recognized professional society and conferring membership in the relevant professional society to successful candidates, should be included at this level. Presumably the conferring of membership in a recognized professional society of the type that requires demonstration of professional competence for membership, and membership of which is a requirement for practising the profession, may be considered as indicating successful completion of qualifying programmes equivalent to obtaining the relevant university degree. This does not apply, of course, to membership in a professional society which requires no programme of education and no examination, or when membership is not required to practise the profession even if a pro forma examination is conducted for membership. Furthermore, special circumstances may exist in some countries, especially at times of severe scarcity in some professions when membership in an association (a requisite for practising) may not be taken to indicate full professional qualification.

As a general guide it may be said that the level of the programmes of study is the important criterion and not the educational history of the individual student. For example, a student possessing a bachelor of arts degree and studying for the ordinary certificate or degree in teacher training is considered to be at this level because he is not pursuing higher studies in the subject of his first degree. Similarly, refresher courses provided for those possessing first university degrees or the equivalent are considered to be at this level because they are up-dating earlier education at this level. These are examples to indicate intent and should not be taken as exhaustive.

601 General programmes

This field includes programmes in education at the third level : first stage, of the type that leads to a first university degree or equivalent, each of which covers a variety of subject matter designed to provide a broad spectrum of knowledge concerning the theories, analytical methods, investigatory procedures, laboratory and field work techniques of the humanities, social sciences, natural sciences, and their applications.

Kinds of programmes included are those having no stated subject specialization, although they may be designed to have a broad subject emphasis, such as emphasis on the humanities and social sciences, or emphasis on the natural sciences or their applications. These programmes are different from those designated as, for example, general programmes in art studies, general programmes in the humanities, general programmes in the social and behavioural sciences, or general programmes in natural sciences, in that the general programmes assigned to a specific field are designated as specialized in that field, and the majority of the constituent courses, at least in the last two years of study, are in the major subject field. The programmes included in this field (601) are so broadly based in terms of subject matter that no particular subject or subject field predominates to the extent that it could be designated as the major subject.

Some universities provide full four-year programmes of the kind included in this field as general programmes, but many universities do not offer such programmes. In some university systems, general programmes of this type will apply to a large segment of those enrolled in the first year, and perhaps also in the second year of a four- or five-year programme. This applies to systems in which the first year or first two years consist of a broadly based general type of programme while the third, fourth and perhaps fifth years consist of programmes having a very high degree of subject specialization. In other university systems and for some kinds of programmes in the systems described immediately above, subject specialization begins in the first year. By subject specialization is meant concentration on a particular subject field or individual subject to the extent that a student becomes a specialist or particularly knowledgeable in the speciality. It does not imply, of course, exclusive attention to the speciality.

Programmes may be full-time or part-time, day or evening. At this level, however, most programmes are full-time, although students may undertake them on a part-time basis. Most programmes are conducted by universities, colleges, or similar institutions. Courses and programmes are sometimes provided by correspondence or through broadcasts (radio or television).

Usual minimum educational prerequisite is completion of second level education, second stage, although in exceptional cases mature students may be admitted with lower educational qualifications on demonstration of ability to handle the subject matter at this level.

Usual award for successful completion of a programme is a degree (B.A.) or the equivalent.

60101 General programmes with no special subject emphasis

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, with no special subject emphasis, designed to provide a broad general understanding of the theories, investigative practices and techniques used in the humanities, social sciences and natural sciences.

Programmes may last from two to four years in a college or university and may consist of lectures, seminars and discussion groups. Programmes usually consist of a number of compulsory courses giving a general background in a wide variety of subject areas, as well as some optional courses, chosen so that no particular major field or subject is identified.

Usual minimum educational prerequisite is completion of second level education, second stage.

Upon successful completion, students are awarded a first university degree (B.A.) or the equivalent.

60102 General programmes with emphasis on the humanities or the social and behavioural sciences

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, designed to develop knowledge with emphasis on the humanities or social and behavioural sciences as a whole. They are designed to provide a broad general understanding of theory, investigative practices and the techniques used in these disciplines.

Programmes normally last from two to four years in a college or university, and usually consist of lectures, seminars and discussion groups, with courses drawn from a variety of subject areas, with some emphasis on the humanities or social and behavioural sciences, but the courses being so chosen that no particular major subject or field is identifiable.

Usual minimum educational prerequisite is completion of education at the second level; second stage.

Upon successful completion, students are awarded a first university degree (i.e. B.A.) or the equivalent.

60105 General programmes with emphasis on the natural or applied sciences

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, designed to develop knowledge with emphasis on the natural or applied sciences, as a whole. They are designed to provide a broad general understanding of theory, research methodology, investigative practices and techniques used in the disciplines.

Programmes normally last from two to four years in a college or university, and usually consist of lectures, seminars and discussion groups, laboratory and field work, with courses drawn from a variety of subject areas, with some emphasis on the natural or applied sciences but the courses being so chosen that no particular major field or subject is identifiable.

Usual minimum educational prerequisite is completion of second level education, second stage.

Upon successful completion, students are awarded a first university degree (i.e. B.A., B.Sc.) or the equivalent.

614 Programmes in education science and teacher training

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to a first university degree or equivalent, dealing with the theory and practice of teaching.

Programmes for school teaching are primarily intended to prepare students to undertake teaching at the second level of education, second stage; but some include preparation for teaching at the first stage of second level or for third level non-university type teaching. They stress the theory and history of education without neglecting practice teaching along with observation of experienced teachers. At this level the heaviest enrolment is likely to be encountered in programmes for subject-matter specialists, i.e. those who expect

to teach one or two special subjects. Along with courses in education theory and teaching methods these programmes often include courses in educational administration, teacher supervision and inspection practice.

Important kinds of programmes included are : general programmes (i.e. not specialized by subject matter or by type of student to be taught), programmes for teachers with a subject-matter speciality either in a non-vocational subject (e.g. history, languages, natural sciences, mathematics, geography, physical education) or in a vocational subject both in and out of school (e.g. fine arts, home economics, woodworking, metalworking, welding, commercial subjects, agriculture); programmes for teaching pre-school or kindergarten; programmes for teaching in adult education both in school and out of school; programmes for teaching handicapped children and programmes for teaching teacher trainees; and programmes for higher level staff for extension and other types of out-of-school education of adults and young people.

Programmes may be full-time (usually the majority) or part-time, day or evening; many part-time programmes being those for improving the qualifications of teachers and refresher courses, others being those for personnel in extension, adult education and other non-formal teaching. Many programmes are provided during school vacations, particularly those for teachers and those providing partial qualification in areas of teacher shortage (i.e. a prospective teacher can gain full qualification by study in successive vacation periods, being encouraged to take employment as a teacher in the intervals).

Usual minimum educational prerequisite is completion of third level education, first stage, of the type leading to a first university degree, usually with specialization in the subject or subjects to be taught. In special cases (mainly for qualification as a teacher of a vocational subject or as a teacher in adult education), mature students with valuable work experience may be admitted with lower educational qualifications.

Usual award for successful completion of a programme is a teaching certificate approved by the appropriate educational authority.

(Note that the above definition includes only programmes consisting primarily of courses in teacher training /education/ or pedagogy. Programmes in a university or teachers' college for undergraduate students, e.g. undergraduate programmes in education, consisting primarily of a subject-matter speciality other than teacher training but containing some courses in pedagogy, are classified according to the principal subject speciality, e.g. history, geography, mathematics, literature, chemistry, etc. This practice is designed to facilitate the international comparability of enrolment and other data classified by subject speciality as well as the comparability of such data in successive time periods for particular countries.)

61401 General teacher training programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of lectures, group discussion and practice teaching designed to train teachers mainly for the second level and occasionally for the third non-degree level of education. These programmes consist primarily of courses in pedagogy (teacher training) and related subjects such as the theory of education and educational administration.

Principal course content usually includes the history, philosophy, psychology, and sociology of education; the theory and practice of teaching; and educational administration. In addition, time is devoted to observation of experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is a first university degree, but mature students with related work experience may be admitted with lower educational qualifications. For short programmes, especially those designed to improve the qualifications of teachers, work experience is usually given greater weight than educational qualifications. Programmes are either full- or part-time, and usually last the equivalent of one year's full-time study.

Usual award for successful completion is a teaching certificate or diploma.

61404 Teacher training programmes with specialization in a non-vocational subject

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of lectures, group discussion and practice teaching designed to train teachers with specialization in a non-vocational subject such as mathematics, social studies, language, physical education, etc. Students completing these programmes are qualified to teach at the second level, and in some cases at the non-degree third level of education. These programmes consist primarily of courses in pedagogy (teacher training) and related subjects such as the theory of education and educational administration.

Principal course content usually includes the history, philosophy, psychology, and sociology of education; the theory and practice of teaching in general and of teaching the particular area of specialization; and often some courses in the subject to be taught. In addition, time is devoted to observation of experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is a first university degree or equivalent, but mature students with related work experience may be admitted with lower educational qualifications. For short programmes, especially those designed to improve the qualifications of teachers, work experience may be given greater weight than educational qualifications. The programmes may be full- or part-time, and usually last the equivalent of one full academic year.

Usual award for successful completion is a teaching certificate or diploma.

61408 Teacher training programmes for teaching practical or vocational subjects

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of lectures, group discussion and practice teaching designed to train teachers of specific vocational subjects such as music, fine arts, woodworking, commercial subjects, agriculture, etc. Students completing these programmes are qualified to teach at the second level and in some cases at the third non-degree level of education. These programmes consist primarily of courses in pedagogy (teacher training) and related subjects such as the theory of education. Included also are programmes for teachers or instructors of out-of-school vocational education.

Principal course content usually includes the history, philosophy, psychology, and sociology of education; the theory and practice of teaching in general and of the vocational subject concerned; and often courses in the subject to be taught. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is a first university degree or the equivalent, usually with specialization in the subject to be taught, but mature students with related work experience may be admitted with lower educational qualifications. For short programmes, especially those designed to improve the qualifications of teachers or to train instructors for out-of-school education, work experience may be given greater weight than educational qualifications. Programmes may be full-time or part-time, and last the equivalent of one year's full-time study or less.

Usual award for successful completion is a teaching certificate or diploma.

61412 Teacher training programmes for teaching pre-school or kindergarten

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of lectures, group discussion and practice teaching designed to train teachers for education preceding the first level. These programmes emphasize the theory of education and the theoretical and general principles of the subjects studied. They consist primarily of courses in pedagogy (teacher training) and related subjects such as the theory of education and educational administration.

Principal course content usually includes the history, philosophy, psychology, and sociology of education; the theory and practice of teaching in general and the teaching of pre-school children in particular; and general courses that will assist in the understanding and guidance of pre-school and kindergarten children. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is a first university degree or equivalent, but mature students with relevant experience may be admitted with lower educational qualifications. For short programmes, especially those designed to improve the qualifications of teachers, work experience may be given greater weight than educational qualifications. Programmes may be full- or part-time, and last the equivalent of one year's full-time study. They are usually given in a teachers' college or a university.

Usual award for successful completion is a teaching certificate or diploma.

61416 Teacher training for teachers in adult education

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of lectures, group discussion and practice teaching designed to train teachers for adult education both in and out of school. Students completing these programmes are qualified to teach at the second level and at the third non-degree level of education. These programmes emphasize the theory of education and the theoretical and general principles of the subjects studied. They consist primarily of courses in pedagogy (teacher training) and related subjects such as the theory of education.

Principal course content for these intending to teach in schools usually includes the history, philosophy, psychology and sociology of education; the theory and practice of teaching in general and of teaching and retraining adults; and special problems encountered in communicating with adults from varied backgrounds. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Principal course content for those planning to engage in extension work and other types of out-of-school education tends towards emphasis on the subject matter to be taught, sociology related to the groups concerned, learning theory, attitudes and reactions to change, practice demonstrations, etc.

Usual minimum educational prerequisite is a first university degree or equivalent, but mature students with related work experience may be admitted with lower educational qualifications. For short programmes, especially those designed to improve the qualifications of teachers (and for those preparing for out-of-school teaching), work experience may be given greater weight than educational qualifications. Programmes may be full- or part-time, and last the equivalent of one year's full-time study or less. They are usually given in a teachers' college, a university, or a special adult education training institution.

Usual award for successful completion is a teaching certificate or diploma.

61422 Teacher training for teaching handicapped children

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of lectures, group discussion and practice teaching designed to train teachers of handicapped children. These programmes emphasize the theory of education and the theoretical and general principles of the subjects studied. They consist primarily of courses in pedagogy (teacher training) and related subjects such as the theory of education and educational administration.

Principal course content usually includes the history, philosophy, psychology, and sociology of education; the theory and practice of teaching in general and of teaching handicapped children in particular; theoretical courses leading to a basic understanding of the problems of handicapped children and psychological implications of the disabling condition. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is a first university degree or equivalent. Mature students with relevant experience may be admitted with lower educational qualifications but for short programmes, especially those designed to improve the qualifications of teachers, work experience may be given greater weight than educational qualifications. Programmes may be full-time or part-time, and last the equivalent of one year's full-time study. They are usually given in a teachers' college, university, special school, or teaching hospital.

Usual award for successful completion is a teaching certificate or diploma.

61432 Teacher training for teacher trainers

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of lectures, group discussion and practice teaching designed to train teachers for teachers' colleges, teacher training institutes, etc. These programmes consist primarily of courses in pedagogy (teacher training) and related subjects such as the theory of education and educational administration, but they involve both the practical and the theoretical aspects of training teachers.

Principal course content usually includes the history, philosophy, psychology, and sociology of education; the theory and practice of teaching; the theory of learning; practical teaching aids such as audio-visual equipment, programmed learning methods and teaching machines; curriculum development and lesson planning. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is a first university degree or equivalent, but mature students with relevant work experience may be admitted with lower educational qualifications. Programmes may be full-time or part-time, and last the equivalent of one year's full-time study. They are usually given in a teachers' college or a university.

Usual award for successful completion is a teaching certificate or diploma.

61499 Other programmes in education science and teacher training

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of lectures, group discussion and practice teaching designed to train teachers of specializations other than those defined above. Students completing these programmes are qualified to teach at the second level and sometimes at the third non-degree level of education. These programmes consist primarily of courses in pedagogy (teacher training) and related subjects such as the theory of education and educational administration.

Principal course content usually includes the history, philosophy, psychology and sociology of education; the theory and practice of teaching in general and of teaching the particular speciality; and often courses in the subject to be taught. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is a first university degree, but mature students with related work experience may be admitted with lower educational qualifications. For short programmes, especially those designed to improve the qualifications of teachers, work experience may be given greater weight than educational qualifications. Programmes may be full-time or part-time, and last the equivalent of one year's full-time study. They are usually given in a teachers' college, a university, or a specialized educational institution.

Usual award for successful completion is a teaching certificate or diploma.

618 Fine and applied arts programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to a first university degree or equivalent, dealing with the theory, history, techniques, performance and

production in the fine and applied arts. These programmes stress the theoretical and general principles underlying the subjects included while not neglecting their techniques, performance methods, and related practical aspects.

The principal kinds of programmes included, which aim at the development of artistic creativeness and of skill in performance as well as appreciation of the theoretical principles involved (for example, the history of art, the history of music, form and analysis, harmony, counter-point), come within such artistic branches as drawing and painting (including etching and printmaking), sculpturing, music, the drama, the dance, interior design, etc. Programmes in any of these areas usually contain some background courses in related fine or applied arts intended to supplement and to assist in mastering the theory and techniques of the major subject. Background courses are usually included also from such related fields as the humanities, social and behavioural sciences, and natural sciences. (Note that programmes in architecture and town planning are not included here but in 658).

Programmes may be full-time or part-time, day or evening. At this level, however, most programmes are full-time, although students may undertake them on a part-time basis. In many cases, study of the subject is supplemented by practice or performance in the relevant field. Programmes are usually conducted in universities or colleges but sometimes the institutions are known by other names, e.g. conservatories of music.

Usual minimum educational prerequisite is completion of second level education, second stage. In exceptional cases, experienced applicants with lower educational qualifications may be admitted to a programme after demonstrating satisfactory performance in the relevant subject.

Usual award for successful completion of the programme is a university degree (B.A.) or the equivalent.

61801 General programmes of art studies

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of demonstrations, lectures and student studio practice, designed to provide the student with experience in a variety of art media, a knowledge of art history and theory, and an appreciation of the arts. Programmes may be of two types: one allows the student to specialize in certain selected media or areas (painting, sculpture, art history, etc.) toward the goal of becoming a practising professional artist or art scholar; the other requires the art student to gain proficiency, experience and understanding in a wide range of media and areas toward the goal of becoming a teacher of art at the elementary and/or secondary level. In either programme the student usually is required

to successfully complete a "foundations" course - a semester or year of general inquiry into and experience in the arts.

The content of these programmes usually includes inquiry and practice in a wide variety of the study media (drawing, painting, sculpture, print media, weaving, ceramics, etc.), art history, philosophy of art, and perhaps commercial art techniques and processes.

Usual minimum educational prerequisite; students wishing to enter these programmes are usually required to have completed second level education, second stage, and to demonstrate an aptitude and skill in one or more of the study areas. Applicants with maturity, outside experience in the arts, and aptitude and commitment may be allowed to enter these programmes without having completed the educational requirements of the second level.

The length of these programmes varies, but they usually consist of from three to five years of study.

Usual award for successful completion of a programme is a university degree (B.A.) or the equivalent.

61804 Programmes in drawing and painting

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, designed to provide basic professional training in drawing and painting. Emphasis is usually placed on theory, but practice is not ignored, and through lectures, seminars, demonstrations, and studio practice, students acquire a broad background in drawing and painting.

Programmes usually last from three to five years in a university or college of art. They consist of a number of prescribed courses in such subjects as basic drawing, design, freehand drawing, history of art, lettering, theory of colour, calligraphy or silk-screen printing, designed to provide a core or foundation in drawing and painting, as well as a number of liberal arts courses such as the literature of the indigenous language, history, social science, foreign languages, philosophy, and some elective courses, possibly in some specific field of emphasis.

Usual minimum educational prerequisite is completion of second level education, second stage, often with a demonstrated affinity for drawing and painting. Applicants who have achieved a degree of maturity and some related experience may be admitted with lower educational qualifications.

A university degree or equivalent diploma is awarded upon successful completion of the prescribed programme, usually after written and practical examinations, which may include an oral examination.

61808 Programmes in sculpturing

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, designed to provide basic professional training in sculpturing. Emphasis is usually placed on theory, but practice is not ignored, and through lectures, seminars, demonstrations and studio practice, students acquire a broad background in sculpturing. Individual programmes may emphasize certain fields within the broad area, such as Greek or Hindu sculpture, visual and spatial relationships, or ceramics.

Programmes usually last from three to five years in a university or college of art, and consist of a number of prescribed courses in such subjects as the history of art and sculpture, visual and spatial relationships, and basic form and design intended to provide a core or foundation in sculpture. In addition, most programmes include liberal arts courses such as the literature of the indigenous language, history, social science, foreign languages, philosophy, and a number of elective courses, often in some specific area of emphasis.

Usual minimum educational prerequisite is completion of second level education, second stage, often with demonstrated affinity for sculpturing. Applicants who have achieved a degree of maturity and some related experience may be admitted with lower educational qualifications.

A university degree or equivalent diploma is awarded on successful completion of the prescribed programme, usually after written and practical examinations, which may include an oral examination.

61822 Programmes in music

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, designed to provide basic professional training in music. Emphasis is usually placed on theory, but practice is not ignored, and through lectures, seminars, demonstrations and studio practice, students acquire a broad background in music. Individual programmes may emphasize certain fields within the broad area, such as music history, music literature or music theory.

Programmes usually last from three to five years in a university or music school, and consist of a number of prescribed courses in such subjects as music history, harmony, counterpoint, aural theory, orchestration, arranging and composition, intended to provide a core or foundation in music. In addition, most programmes include some liberal arts courses such as the literature of the indigenous language, history, social science, foreign languages, philosophy, and a number of elective courses, possibly in some specific field of emphasis.

Usual minimum educational prerequisite is completion of second level education, second stage, often with demonstrated affinity for music, e.g. ability to play a musical instrument. Applicants who have achieved a degree of maturity and some related experience may be admitted with lower educational qualifications.

A university degree or equivalent diploma is awarded on successful completion of the prescribed programme, usually after written and practical examinations, which may include an oral examination.

61832 Programmes in the drama

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, designed to provide basic professional training in the theatre. Emphasis is given to theory, but practice is not ignored and through lectures, seminars, demonstrations and studio practice, students acquire a broad background in acting and other theatrical activities. Individual programmes may emphasize certain fields within the broad area, such as acting, stagecraft, make-up, directing or production.

Programmes usually last from three to five years in a university or drama school and consist of a number of prescribed courses in such subjects as acting, voice and diction, stagecraft, history of the theatre, oral interpretation, rehearsal, and production, designed to provide a core or foundation in drama. In addition, most programmes include liberal arts courses such as the literature of the indigenous language, history, philosophy, languages or social sciences, and a number of elective courses, possibly in some specific field of emphasis.

Usual minimum educational prerequisite is completion of second level education, second stage, often with demonstrated affinity for the drama. Applicants who have achieved a degree of maturity and some related experience may be admitted with lower educational qualifications.

A university degree or equivalent diploma is awarded upon successful completion of the prescribed programme, usually after written and practical examinations, which may include an oral examination.

61852 Programmes in interior design

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, designed to provide basic professional training in interior decoration. Emphasis is given to theory, but practice is not ignored, and through lectures, seminars, demonstrations, and studio practice, students acquire a broad background in interior design. Individual programmes may emphasize certain subjects within the broad area, such as the interior decoration of public buildings, office decoration, or home interior decoration.

Programmes usually last three to five years in a university or college of art and design, and consist of a number of prescribed courses in such subjects as space organization, aesthetics, problems in furniture design and mass production, for the purpose of providing a core or foundation in interior design. In addition, most programmes include liberal arts courses such as the literature of the indigenous language, history, philosophy, languages or social sciences, and a number of elective courses, possibly in some specific area of emphasis.

Usual minimum educational prerequisite is completion of second level education, second stage, often with a demonstrated affinity for design. Applicants who have achieved a degree of maturity and some related experience may be admitted with lower educational qualifications.

A university degree or equivalent diploma is awarded upon successful completion of the prescribed programme, usually after written and practical examinations, which may include an oral examination.

61899 Other fine and applied arts programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, designed to provide basic professional training in fine and applied arts other than those previously defined, e.g. the dance, the history of art, etc. Emphasis is given to theory but practice is not ignored and through lectures, seminars, demonstrations and

studio practice, students acquire a broad background in some fine or applied art. Individual programmes usually emphasize certain areas within the particular art.

Programmes usually last three to five years in a university or specialist college or institute and consist of a number of prescribed courses intended to provide a core or foundation in the particular art. In addition, most programmes include liberal arts courses such as the literature of the indigenous language, history, philosophy, languages or social sciences, and a number of elective courses, possibly in some specific area of emphasis.

Usual minimum educational prerequisite is completion of second level education, second stage, often with demonstrated affinity for the particular art. Applicants who have achieved a degree of maturity and some related experience may be admitted with lower educational qualifications.

A university degree or equivalent diploma is awarded upon successful completion of the prescribed programme, usually after written and practical examinations, which may include an oral examination.

622 Humanities programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to a first university degree or equivalent, concerned with theories, analytical methods and practices of subjects in the humanities. In these programmes the theoretical and scientific principles of the constituent subjects are stressed, but an understanding of practical application and of the institutions involved is not ignored.

The principal kinds of programmes included are those dealing with the current or vernacular language and its literature, other living languages and their literature, "dead" languages and their literature, linguistics (including programmes in translation and interpretation), comparative literature, history, archaeology, philosophy, etc. A programme in any of these subjects usually contains some background courses in related humanities subjects designed to supplement and to assist in mastering the major subject. Other background courses often include a selection from such fields as the fine and applied arts, social and behavioural sciences, religion and theology, law and jurisprudence, natural science, and mathematics.

Programmes may be full-time or part-time, day or evening. At this level, however, most programmes are full-time; although students may undertake them on a part-time basis. Part-time programmes are mainly refresher or retraining courses. Most programmes are conducted by universities, colleges, or similar institutions, but some are provided by other institutions: government departments and other government agencies. Courses and programmes

are sometimes provided by correspondence or through broadcasts (radio or television).

Usual minimum educational prerequisite is completion of second level education, second stage, although in exceptional cases mature students may be admitted with lower educational qualifications upon demonstration of ability to handle the subject matter at this level.

Usual award for successful completion of a programme is a degree (B.A.) or the equivalent.

62201 General programmes in the humanities

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom or group discussion and seminars, dealing with concepts, terms, and analytical methods in the several areas of literature, history, language, philosophy and the liberal arts in general.

Principal course content usually includes, i.a., world history; cultures and religions (e.g. Greek, Roman, Hindu, Far Eastern); the history of ideas and philosophy; ethics; the philosophy of science; archaeology, and one or more foreign languages, including literature, modern or classical. Courses are often arranged as major projects dealing with particular areas of culture. Background courses often include a selection from such fields as the fine and applied arts, the social and behavioural sciences, religion and theology, law and jurisprudence, natural sciences, and mathematics.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

62211 Programmes in the current or vernacular language and its literature

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions, guided reading, original writing, and group discussion, dealing with the study of the mother tongue or of a current language and its literature. These programmes may be combined with others - for example, with history or a foreign language.

Principal course content usually includes advanced grammar and syntax; general linguistics; the historical development of the language; the philosophy of language; and the phonology and morphology of language. Considerable emphasis is placed on literature, literary criticism, and interpretation, with great books being read and studied in detail. There is frequently concentration on particular periods and/or particular authors. Students may be encouraged to write prose or poetry. In some cases, optional courses may be offered in calligraphy as well as in paleography and the deciphering of texts. An acquaintanceship with early forms of the language may be expected - for example, in the English-speaking world, with Old or Middle English. Background studies usually include history, foreign languages, comparative literature, natural sciences, the social and behavioural sciences, philosophy, and mathematics.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

62215 Programmes in other living languages and their literature

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions and group discussion dealing with the study of one or more living languages other than the students' "mother tongue", including grammar, syntax and literature. Programmes often include study of the history, geography, and culture of the country or area in which a language is spoken. A residence period of one year or more in that particular country or area is often a compulsory part of the programme. Simultaneous study of two or three living languages may be carried on, at a less advanced level than if only one language were being studied. Language laboratories are in widespread use.

Principal course content usually includes the phonology, morphology, and syntax of language; a general study of relevant literature, with a detailed consideration of great writers and their works; advanced composition and translation; conversation; the historical development of the languages.

Background courses usually include history, the social and behavioural sciences, other humanities, and natural sciences.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

62221 Programmes in "dead" languages and their literature

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions, guided reading and group discussion, dealing with the study of languages no longer in current use, for example, Latin, Sanskrit, or Pali; the grammar, syntax, and literature of these languages; and the history and cultures of the people who used them. In many cases the study of two or three "dead" or classical languages is carried on simultaneously.

Principal course content usually includes the grammar, morphology, and syntax of the language; translation and composition; the literature of the language, with emphasis on its great writers and their works; the interpretation of texts; and the historical development of the language. Courses in such subjects as paleography and archaeology may also be included. Background courses usually include world literature, ancient history, the natural sciences, and the social and behavioural sciences.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

62231 Programmes in linguistics

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions and group discussion, dealing with the basic concepts of language formation. These programmes may be combined with others, for example, with programmes in current or foreign languages.

Principal course content usually includes, i.e., an introduction to transformation grammar; basic psycholinguistics; historical linguistics; types of grammatical rules and their inter-relationships; the algorithm for assigning structural descriptions; the evaluation procedure for selecting the best compatible grammar; the relationship between the behavioural and structuralist views; and the deterministic view of language as a system of habits. Background courses usually include literature, history, the natural sciences, social and behavioural sciences, and mathematics.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

62241 Programmes in comparative literature

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions and group discussion, dealing with the study of international literary and cultural relationships.

Principal course content usually includes some of the following : the currency, reception, and influence of writers and their works in countries other than those of their origin; the transmission and evolution of international literary movements; the characteristics of and relationships between genres, themes and motifs; folk literature and folklore; criticism; aesthetics; intermediaries; the relationships between literature and other disciplines, etc. Background courses usually include history, the social and behavioural sciences, philosophy, religion and theology, and the natural sciences.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

62251 Programmes in history

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom or group discussion and seminars, dealing with the discovery of the reality of the past and the interpretation of human social behaviour and institutions through time. These programmes are sometimes combined with others, for example, with programmes in political science, economics, or philosophy.

Principal course content usually includes the political, diplomatic, social, and cultural development of a particular area or country, with the rest of the world being considered chiefly in the light of its effects on this area or country, world history; the history of science; the history of technology. There may be concentration on specific aspects of the whole - e.g. on economic or cultural aspects. Courses in epigraphy and paleography, the interpretation of documents, and the philosophy of history may also be offered. Background courses usually include the social and behavioural sciences, natural sciences, economics, political science, foreign languages and literature.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A.) or its equivalent.

62261 Programmes in archaeology

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions and group discussion, dealing with the study of the material remains of mankind's past. These programmes are sometimes combined with others - e.g. with programmes in history, anthropology, or sociology.

Principal course content usually includes, i.a., the general history and development of archaeology; archaeological terminology; archaeological problems; archaeological records; archaeological classification; professional archaeology; the techniques and principles of excavation; methods of assigning dates; typology; the study of civilizations; the development of archaeological techniques; classical and mediaeval archaeology, etc. Background courses usually include ancient history, the natural sciences, world literature, foreign languages, philosophy, economics, sociology, etc.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

62271 Programmes in philosophy

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions and group discussion dealing with such matters as the nature of reality, human consciousness, human values and aesthetics. These programmes are often combined with others, for example, with programmes in history, political science, or classical languages.

Principal course content usually includes, i.a., an introduction to philosophical thinking; classical and modern logic; the history of philosophy; one or more types of classical philosophy studied in detail; ethics and morals; epistemology; aesthetics, etc. Optional courses include the philosophy of science, of religion, of language and semantics. Frequently there is concentration on a particular school such as Marxism, existentialism, scientific humanism, or empiricism. Background courses usually include history, the fine and applied arts, religion and theology, social sciences, and foreign languages.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

62299 Other programmes in the humanities

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom instruction, group discussion and practice in the humanities, but not classifiable under categories 62201 through 62271. These programmes may stress a particular approach to culture and the humanities, be arranged around a particular centre of interest, or include unusual combinations of courses.

Principal course content usually includes the study and practice of one or more foreign languages, the history of cultures and civilizations, philosophy, literature, and archaeology. Other courses may be featured depending on the chief aim of the programmes - artistic, cultural, philosophical, ideological, political.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a first university degree (B.A.) or the equivalent.

626 Religion and theology programmes

Programmes in education at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of lectures, group discussion and practice concerned with the study of religious doctrine, of the relevant religious rites and offices and the propagation of the religious belief. Although theological scholarship is stressed, these programmes also include practical application on the rôle of ministers of religion, priests, and other religious workers.

Principal course content usually includes study of relevant classical languages (e.g. Pali, Sanskrit, Hebrew, Greek, Latin, etc.) and textual analysis and criticism; religious history, the relevant theology, comparative religions, study of relevant ancient writing, manuscripts, etc.; analysis and criticism of theological interpretations of sacred works; expository methods in religious practice including the rôle of prayer, preaching, singing, and ritual. Programmes at this level usually include a selection of relevant courses in other fields such as the humanities; social sciences; fine and applied arts; social welfare; law and jurisprudence. In addition, time is devoted to work among people and to assisting qualified ministers of religion or other religious workers in the performance of their duties, including the conducting of religious services and other offices in places of worship.

Usual minimum educational prerequisite is completion of second level education, second stage. In exceptional cases; mature candidates with relevant experience and appropriate motivation may be admitted with lower educational qualifications.

Usual award for completion of a programme is ordination as a minister of religion, often with a bachelor's degree (B.D., B.A.) or the equivalent.

62600 Religion and theology programmes (see definition under 626)

630 Social and behavioural science programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to a first university degree or equivalent, concerned with the theory, analytical methods, and practices of the social and behavioural sciences. These programmes stress the theoretical and scientific principles of the subjects included, as well as an understanding of the institutions involved and the analytical tools and methods of social science.

The principal kinds of programmes included are those dealing with economics, political science, sociology (including demography); anthropology, psychology, geography, studies of regional cultures. A programme in any of these subjects usually contains some background courses in related social and behavioural sciences designed to supplement and to assist in mastering the major subject. Other background courses often include a selection from such subjects as the humanities, natural sciences, law and jurisprudence, business administration and related programmes, mathematics, computer science, and statistics.

Programmes may be full-time or part-time, day or evening. At this level, however, most programmes are full-time, although students may undertake them on a part-time basis. The part-time programmes are mainly refresher or retraining courses. Most programmes are conducted by universities, colleges or similar institutions, but some are provided by employers, trade unions, employers' associations, etc. Courses and programmes are sometimes conducted by correspondence or through broadcasts (radio or television).

Usual minimum educational prerequisite is completion of second level education, second stage, although in exceptional cases mature students may be admitted with lower educational qualifications upon demonstration of ability to handle the subject matter at this level.

Usual award for successful completion of a programme is a degree (B.A., B.Sc.) or the equivalent.

63001 General programmes in the social and behavioural sciences

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of the social and behavioural sciences in general.

Principal course content usually includes the principles of social and behavioural sciences such as economics, political science, sociology, anthropology, psychology, geography; specialized courses in the various social and behavioural sciences, particularly those concerned with interdisciplinary subjects such as economic policies of governments, political factors in economic analysis, political sociology, social and cultural anthropology, social psychology, etc. In most cases, students choose some combination of social science problems and policies and arrange to take the relevant courses. Background courses usually included are those in the humanities such as languages, literature, history, archaeology, philosophy, etc.; business administration specialities, law, relevant natural science programmes, mathematics, and computer science.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree or the equivalent.

63012 Economics programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion, dealing with the theoretical and institutional bases of modern economic systems, their histories and operating principles.

Principal course content usually includes the principles of economics, economic theory, history of economic thought, economic history, economic organization and planning, economic development in historical perspective, public finance, labour economics, money and banking, industrial organization, urban economics, national accounts, international and inter-regional exchange, monetary policy, international payments, marketing, and econometrics. Background courses often included are statistical methods, mathematics, and study of social and political institutions.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree or the equivalent.

6022 Political science programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of government.

Principal course content usually includes national governmental institutions, comparative government, political theory, history of political thought, local governmental institutions and problems, constitutional development, public administration, and international inter-governmental organizations. Background courses often included are relevant specialities in economics, sociology, psychology, history, languages and philosophy.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree or the equivalent.

63032 Sociology programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion, dealing with the principles and practices of modern human societies, including the dynamics of social organizations, institutions, and groups.

Principal course content usually includes the history of sociological theory, contemporary sociological theory, social problems, the sociology of the family, comparative social systems, social change, urban sociology, political sociology, social stratification, population and human ecology, demography, social institutions, and social conflict theories. Background courses often included are the principles of economics, political science, race and ethnic relations, anthropology, criminology and penology, statistics and research methods, problems of minority groups, and psychology.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree or the equivalent.

63042 Anthropology programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of primitive human societies, including social organization and art forms.

Principal course content usually includes comparative anthropology, physical anthropology, kinship systems in primitive societies, culture and personality in primitive societies, social organization of pre-literate societies, economic anthropology, religion in primitive societies, languages in pre-literate cultures, comparative ethnology, methods in cultural anthropology. Background courses often included are general archaeology, principles of linguistics, comparative sociology, social psychology, experimental analysis of social behaviour, geology, history, and statistical analysis.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree or the equivalent.

63052 Psychology programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of psychology.

Principal course content usually includes subjects such as learning and motivation, evolution and development of behaviour, sensory processes and perception, experimental psychology, applied psychology, physiological psychology, social psychology, developmental psychology, theories of personality, experimental analysis of behaviour disorders, cognitive processes, history of psychology, clinical psychology, psychometrics. Background courses often included are sociology, anthropology, biology, mathematics and philosophy, anatomy and physiology of the nervous system.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree or the equivalent.

63062 Geography programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and applications of geography.

Principal course content usually includes specialized subjects such as the history of geographic thought, political geography, urban geography, physical geography, economic geography, quantitative geography, comparative geography, cultural and anthro-geography, cartography. Background courses often included are climatology, map interpretation, interpretation of aerial photographs, industrial location and development, geology, archaeology,

anthropology, sociology, statistical analysis, and research methodology.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree or the equivalent.

63072 Studies of regional cultures

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, in which a combination of social and behavioural science and related disciplines is applied to study of the social, cultural, and ethnic problems of a particular geographic region.

Principal course content usually includes principles of sociology; principles of economics, principles of political science, physical geography, economic geography, principles of regional planning, problems of regional development, the structure of local government, urban geography, urban sociology, rural geography, rural sociology, studies of ethnic and minority groups. Background courses often included are relevant languages, demography, anthropology, further courses in economics, further courses in sociology, further courses in political science, mathematics, statistical analysis, and research methodology.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree or the equivalent.

63099 Other social and behavioural science programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of social and behavioural sciences not included in the above programme groups.

Principal course content will depend on the particular social and behavioural sciences included. Branches of social and behavioural sciences already included above are sometimes known by different titles. For example, in the above groupings, ethnology is a branch of anthropology, demography is a branch of sociology, human geography is a branch of geography. The social and behavioural sciences to be included here cannot be specified in advance, but users of ISCED should examine the other programme groups carefully (including those classed as humanities programmes) before allotting any programme to this residual group.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree or the equivalent.

634 Business administration and related programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to a first university degree or equivalent, concerned with the theory, analytical methods, and practices of business management, business methods, public administration, and institutional administration. These programmes stress the theoretical and general principles of the subjects included without neglecting an understanding of the institutions involved and the analytical tools and methods of administration.

The principal kinds of programmes included are those dealing with business administration, and business practices in general, those with specialization in accountancy and record keeping, those with specialization in marketing and sales management, those with specialization in finance and investment, those with specialization in personnel administration and collective bargaining, those with specialization in international operations, etc.; programmes in public administration and programmes in institutional administration, including administration of schools, hospitals, welfare institutions, etc. A programme in any of these subject areas usually includes some background courses in related social and behavioural sciences, humanities, or law and jurisprudence designed to supplement and to assist in mastering the major subject. Other background courses usually include selected natural sciences, engineering, mathematics, computer science, and statistics.

Programmes may be full-time or part-time, day or evening. At this level, however, most programmes are full-time, although students may undertake them on a part-time basis. The part-time programmes are mainly refresher or retraining courses, although programmes in business management and institutional management for those already in management positions are becoming

more and more common. Most programmes are conducted by universities, colleges, or similar institutions, but some are provided by employers, trade unions, employers' associations, government departments, institutions, etc. Programmes and courses are sometimes conducted by correspondence or through broadcasts (radio or television).

Usual minimum educational prerequisite is completion of second level education, second stage. In exceptional cases, mature students may be admitted with lower educational qualifications upon demonstration of ability to handle the subject matter at this level.

Usual award for successful completion of a programme is a degree (B.Com., B.Sc.) or the equivalent. For short-term programmes, a certificate is commonly awarded.

63401 General programmes in business administration (commerce)

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of business management. Emphasis is given to management theory and to the analysis of forces affecting the operation of business organizations such as financial, marketing, production, legal and other factors. A broad background in the social sciences and related subjects is often provided.

Principal course content usually includes specialized business administration subjects such as accountancy, commercial law, corporation finance and administration, marketing and advertising, purchasing policy, production scheduling, personnel administration. Background courses often included are economic theory, economic history, economic geography, money and banking, international trade and payments, labour economics, statistics, and courses in the humanities, political science, and public administration.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.B.A., B.Com., B.Sc.) or the equivalent.

63403 Programmes in business administration with specialization in accountancy

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and group discussion dealing with the principles and practices of business management with specialization in accountancy. Emphasis is given to management theory, especially those elements relating to accountancy such as cost accounting, auditing and public accounting. A background is usually provided in other functional areas of business such as production, marketing and personnel relations.

Principal course content usually includes: specialized business administration subjects such as general accountancy, commercial law, corporation finance, inventory control, accounting records and systems, financial statement analysis, funds flow statements, budgeting systems, product costing, standard costs, return on investment and capital acquisitions. Background courses often included are economic theory, money and banking, labour economics, statistics, and courses in the humanities, political science, and public administration.

Usual minimum educational prerequisite is completion of second level education, second stage. For entry to programmes sponsored by professional accounting associations such as those of chartered accountants and registered industrial accountants, greater emphasis may be placed on experience than on academic qualifications.

Usual award for successful completion is a university degree (B.B.A., B.Com., B.Sc.) or the equivalent.

63409 Programmes in business administration with other specialization

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of business management with emphasis on a field of specialization other than accountancy, e.g. marketing finance and investment, personnel administration, or international operations. A broad background in the social sciences, mathematics, and related subjects is often provided in these programmes.

Principal course content depends on the particular speciality, but most programmes include basic subjects such as accountancy, commercial law; corporation finance and administration, marketing, mathematics, statistics, and economics. Programmes with specialisation in marketing feature marketing management, sales management, market research, information systems, advertising retailing, and market planning; those specializing in finance and investment feature investment and cash management, appraisal of financial securities, personal investment policies and practices, portfolio management, financial institutions, etc.; those specializing in personnel administration feature labour relations, collective bargaining, labour law, wage determination, hiring practices, employee welfare schemes, etc.; while those in international operations feature financial management, investment policy, marketing and market analysis, international relations, and international trade and payments, etc.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.B.A., B.Com., B.Sc.) or the equivalent.

63442 Programmes in public administration

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of public administration. Emphasis is given to governmental processes, political systems, the organization and administration of the public service, statistics, intergovernmental relations; and public finance. A broad background is often provided in the social sciences and related subjects.

Principal course content usually includes specialized public administration subjects such as local government, administrative law, legislative procedures, the budgetary process, the policy process, and intergovernmental relations. Background courses often included are economics, sociology, human relations, accounting and finance, organization theory, the sociology of groups, constitutional history, operations research, data processing, and administrative communications and control techniques.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.P.A., B.A.) or the equivalent.

63452 Programmes in institutional administration

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of institutional administration, e.g. school administration, hospital administration, administration of welfare institutions, etc. Emphasis is given to management theory, and to the specific administrative problems of the relevant type of institution. A broad background in the social sciences and related subjects is usually included.

The general administration subject matter common to these programmes usually includes the principles of administration; institutional accounting; administration forms, e.g. the committee, advisory boards, etc.; operations research techniques, personnel administration, information systems, and often the administration of food, laundry, and other ancillary services. Specific administrative principles and problems in such fields as education, health care, and social service administration are covered in specialized courses suited to the student's speciality. Most programmes of this type also include selected courses from the social sciences, natural sciences, the humanities, law, engineering, etc.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

638 Law and jurisprudence programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to a first university degree or equivalent, dealing with the theory, philosophy, and history of a legal system. Most programmes of this kind also include study of comparative law, i.e. comparisons of various modern and past systems of law. The theoretical

and general principles underlying the subjects included are stressed in these programmes, but they do not neglect practical problems, and most of them use the case study method.

These programmes tend to be general in terms of subject-matter content. They are designed to impart a broad knowledge of the historical roots of the relevant legal system; the techniques required for the practice of law in the relevant context; an appreciation of the law as a social institution; practical problems of framing legislation; legal requirements for transactions such as property transfer, inheritance, etc.; commercial law, including company law and contracts; and criminal law. The programmes usually include background courses which supplement the major subject and assist students in mastering the subject matter of the programmes, such as courses in economics, political science, business and public administration, history, philosophy, and languages.

Programmes may be full-time or part-time, day or evening. They are usually conducted by universities or colleges of law, and some programmes and courses may be conducted by correspondence or through broadcasts (radio or television). Part-time or short-time courses are mainly of the refresher type.

Usual minimum educational prerequisite is completion of second level education, second stage. In some jurisdictions, applicants are required to have a first university degree for admission to a law programme. In exceptional cases, mature students with suitable work experience may be admitted with lower educational qualifications.

Usual award for successful completion of a programme is a degree (LL.B.) or the equivalent.

63801 General programmes in law

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of law and jurisprudence. The historical and theoretical bases for the law are stressed, but the programmes also include the study of current law and practice through case studies and other methods.

Principal course content usually includes subjects dealing with general areas such as the relevant legal history, the relevant basic legal philosophy, the relevant criminal law, and the relevant civil law; more specific legal problems such as administrative law, constitutional law, law relating to family and domestic matters, the law of inheritance, the law of contracts, etc., form the basis for other courses. Background courses often included are economics, sociology, philosophy, psychology, and appropriate

electives in such fields as natural science, business administration, or engineering.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor of laws degree (LL.B.) or an equivalent, such as the *licence*.

63812 Programmes for notaires

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and group and seminar discussion, dealing with the theory and practice of civil law. Programmes for *notaires* exist only in jurisdictions where they are authorized to carry out a wide range of functions in civil law. These programmes do not apply to "notaries public" of the British type.

Principal course content usually includes subjects dealing with general areas such as the relevant history of civil law, the relevant basic legal philosophy, and the relevant civil law; more specific legal questions such as the law relating to the family and domestic matters, the law of inheritance, contract law, the law of property or of property transfer, etc., form the basis for other courses. Background courses often included are accountancy, economics, sociology, psychology, and philosophy.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award for successful completion is a degree or certificate (*licence*).

642 Natural science programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to a first university degree or equivalent, concerned with theory, experimental techniques and, when applicable, field work methods of one or more branches of the natural sciences. These programmes stress the theoretical and scientific principles of the subjects included as well as the mastery of experimental techniques as a basis for research and investigation.

The principal kinds of programmes included are : biological sciences (e.g. general biology, zoology, botany, entomology, microbiology); chemistry (e.g. general chemistry, inorganic chemistry, organic chemistry, physical chemistry); physics (e.g. general physics, mechanics, optics, thermodynamics, relativity, electricity, electronics, atomic and nuclear physics); geological sciences (e.g. mineralogy, petrography, physical geology, paleontology, stratigraphy, geomorphology); astronomy (e.g. basic astronomy, astrophysics, stellar evolution, stellar classification, radio astronomy); meteorology (e.g. synoptic meteorology, physics of weather forecasting, synoptic meteorological laboratory methods, atmospheric thermodynamics); oceanography (e.g. elements of oceanography, biological oceanography, chemical oceanography, physical oceanography, geological oceanography). Programmes in any of the natural sciences usually include background courses in other natural sciences, chosen to supplement and enhance understanding of the major speciality, and many of the programmes also include courses in mathematics, statistics, computer science, social sciences, and the humanities.

Programmes may be full-time or part-time, day or evening. At this level, however, most programmes are full-time, although students may undertake them on a part-time basis. The part-time programmes are mainly refresher courses. Most programmes are conducted by universities, colleges or similar institutions through regular lectures, seminars, laboratory periods and field work, but some are provided through correspondence or through broadcasts (radio or television).

Usual minimum educational prerequisite is completion of second level education, second stage, although in exceptional cases mature students may be admitted with lower educational qualifications upon demonstrating ability to handle the subject matter at this level.

Usual award for successful completion of a programme is a bachelor of science degree or an equivalent diploma.

64202 Biological science programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with fundamental principles of biology. At this level, the theoretical and general principles of the subjects studied are emphasized, although practical application is not ignored.

Principal course content usually includes some of the following : principles of general biology, history of biology, diversity of organisms, inheritance and evolution, environment and man, molecular biology, cellular biology, genetics, cytology, general physiology, comparative invertebrate physiology, comparative vertebrate anatomy, biology of lower plants, morphology of vascular plants, plant and animal taxonomy, biochemistry, ecology, histology, embryology, microbiology. Background courses often included are general chemistry, general physics, mathematics, ethology, humanities, social sciences.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a bachelor of science degree or its equivalent.

64212 Chemistry programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with fundamental principles of chemistry. At this level, the theoretical and general principles of the subjects studied are emphasized, although practical application is not ignored.

Principal course content usually includes some of the following : principles and methods of chemistry, theories of chemistry, physical chemistry, analytical chemistry, chemistry of the elements, elementary and advanced inorganic chemistry, elementary and advanced organic chemistry, quantum chemistry, and industrial chemistry. Background courses often included are general biology, general physics, biochemistry, instrumental analysis, mathematics, humanities, social sciences, and languages.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor of science degree or its equivalent.

64222 Geological sciences programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with fundamental principles of geology. At this level, the theoretical and general principles of the subjects studied are emphasized, although practical application is not ignored.

Principal course content usually includes some of the following : introductory geology, crystallography, mineralogy, optical mineralogy, palaeontology, petrology, stratigraphy, historical geology, geochronology, structural geology, field geology, economic geology, micropalaeontology, geochemistry, sedimentology, geophysics, hydrogeology, marine geology, ore deposits, igneous and metamorphic petrogenesis, examination of mining properties. Background courses often included are geography, general chemistry, general physics, general biology, mathematics, humanities, social sciences, and languages.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor of science degree or its equivalent.

64232 Physics programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with fundamental principles of physics. At this level, the theoretical and general principles of the subjects studied are emphasized, although practical application is not ignored. Note that programmes in physical metallurgy are included.

Principal course content usually includes some of the following : general physics, optics, physical optics, electricity, magnetism, theoretical mechanics, electromagnetic theory, electric circuits, atomic and nuclear physics, optical instruments, electrical measurements and measuring instruments, electronics, advanced mechanics, classical thermodynamics, theoretical physics, statistical mechanics, quantum mechanics, relativity, solid-state physics, physical metallurgy, structure of metals, corrosion. Background courses often included are general chemistry, cosmology, astronomy, astrophysics, history of science, mathematics, humanities, social sciences, and languages.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor of science degree or its equivalent.

64242 Astronomy programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with fundamental principles of astronomy. At this level, the theoretical and general principles of the subjects studied are emphasized, although practical application is not ignored.

Principal course content usually includes some of the following : basic astronomy, cosmology, fundamentals of celestial mechanics, solar physics, space astronomy, introductory astrophysics, stellar atmospheres, stellar interiors, stellar evolution, pulsating stars, novae and supernovae, interstellar medium and gaseous nebulae, astrometry, stellar classification, observational theory, radioastronomy, and galactic structure. Background courses often included are physics, mathematics, photometry, spectroscopy, interferometric methods, geology, statistics, humanities, social sciences, and languages.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor of science degree or its equivalent.

64252 Meteorology programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the fundamental principles of meteorology. At this level, the theoretical and general principles of the subjects studied are emphasized, although practical application is not ignored.

Principal course content usually includes some of the following : physical climatology, biometeorology, physics of weather forecasting, synoptic meteorology, tropical meteorology, synoptic meteorological laboratory methods, synoptic analytical techniques, physical meteorology, dynamic meteorology, hydrodynamics of the atmosphere, atmospheric thermodynamics, meteorological instrumentation, dynamic climatology, and micrometeorology. Background courses often included are mathematics, physics, general chemistry, statistics, geography, geology, astronomy, cosmology, hydrology, humanities, social sciences, and languages.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor of science degree or its equivalent.

64262 Oceanography programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with fundamental principles of oceanography. At this level, the theoretical and general principles of the subjects studied are emphasized, although practical application is not ignored.

Principal course content usually includes some of the following : elements of oceanography, instrumentation and methods in oceanography, survey of navigation, biological oceanography, chemical oceanography, physical oceanography, geological oceanography, and marine population dynamics. Background courses often included are general biology, general physics, general chemistry, biochemistry, statistics, mathematics, computer science, geology, humanities, social sciences, and languages.

Usual minimum educational prerequisite is completion of second level education, second stage; usually in a science programme.

Usual award for successful completion is a bachelor of science degree or its equivalent.

64299 Other natural science programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practice of natural sciences not included in the above programme groups (e.g. programmes in metallurgy). At this level, the theoretical and general principles of the subjects studied are emphasized, although practical application is not ignored.

Principal course content usually includes some of the following : refining and beneficiating of metallic ores, recovery of metals by smelting and refining operations, metal production including rolling, etc., testing of metals, other specialities in natural sciences appropriate to the particular programmes included. Background courses usually include general biology, general chemistry, general physics, appropriate specialities in these subjects, social science specialities, mathematics, and statistics.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a bachelor of science degree or its equivalent.

646 Mathematics and computer science programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to a first university degree or equivalent, concerned with the theory, analytical methods, and practices of mathematics and computer science. These programmes stress the theoretical, general principles of the subjects studied without neglecting an understanding of the technological and practical aspects.

Principal kinds of programmes included are those dealing with general mathematics, statistical methods and analysis, actuarial science, and other specialities in mathematics. Programmes in computer science are included; however, programmes in applied mathematics (except statistics and actuarial mathematics) are not included here, but are in the field of application, e.g. economics (econometrics), biology (biometrics), engineering (engineering mathematics), etc. A programme in any of these specializations usually includes courses in general mathematics (e.g. differential and integral calculus, algebra, trigonometry, analytical geometry, probability theory, etc.), as well as courses related to the particular speciality of the programme. Most of these programmes include background courses in related fields such as social sciences, natural sciences, medicine, engineering, etc. Some programmes also include other courses from the humanities, business administration, or other fields.

Programmes are usually full-time, but students may undertake them on a part-time basis. As a rule, the programmes are conducted in universities, colleges, or similar institutions, and such part-time programmes as exist are mainly refresher or retraining courses. Programmes are sponsored by a variety of institutions including government departments, educational institutions, trade unions, employers, and professional associations. Although most programmes are conducted in a classroom, seminar, or laboratory atmosphere, they may be given by correspondence or through broadcasts (radio or television).

Usual minimum educational prerequisite is completion of second level education, second stage. In exceptional cases, mature applicants with lower educational qualifications may be admitted upon demonstrating ability to handle the subject matter at this level.

Usual award for successful completion of the programme is a university degree (B.A., B.Sc.) or the equivalent.

64601 General programmes in mathematics

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and problem sessions, and seminars in mathematical principles and practices. Three or four years of study are required with upwards of one third of the programme selected from mathematics courses. A broad mathematical background is often provided in the first years of the programme.

Principal course content usually includes differential and integral calculus; introductory analysis; projective geometry; linear algebra and geometry; differential equations; probability theory. Additional courses may be selected from mathematical specialities such as modern algebra;

and geometry; mathematical statistics; theory of numbers; mathematical logic; linear programming; differential geometry; combinatorics and graph theory; stochastic processes and algebraic topology. A selection of background courses is often included from fields such as natural sciences, social science, engineering, etc.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.Sc., B.A.) or the equivalent.

64611 Programmes in statistics

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory sessions (experimental, project or computation) and seminars. Three or four years of study are normally required with more than one third of the programme usually being selected from courses in statistics.

Principal course content usually includes, i.a., theory of probability; statistical inference; theory of games; operational research; sampling theory; mathematical models in behavioural sciences; stochastic processes; analysis of variance; mathematical statistics. Additional courses may be selected from : deterministic models in operations research; linear programming; data processing in operational research; multivariate analysis; sequential analysis; non-parametric statistical inference; large sample theory; time series analysis; geometrical probability and applications; classification and pattern recognition; compound decision problems; econometric statistics. A selection of background courses is often included from fields such as natural science, social science, medicine, engineering, etc.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.Sc., B.A.) or the equivalent.

64621 Programmes in actuarial science

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions, practice (computation or experimental) and seminars. Three or four years of study are normally required with more than one third of the programme selected from courses in actuarial science.

Principal course content usually includes general mathematics; differential and integral calculus; introductory analysis; differential equations; probability theory. Specialized courses are usually selected from the mathematics of investment and credit, introductory life contingencies, finite calculus; theory of life contingencies and selected topics such as preparation and analysis of raw data; application of operational research; risk theory; financing of pensions; social insurance, demography.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.Sc., B.A.) or the equivalent.

64639 Other programmes in mathematics

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions, seminars, and in some subjects, laboratory work. Three or four years of study are normally required, with more than one third of the programme usually being selected from courses in mathematics.

Principal course content usually includes general mathematics; calculus; differential equations; probability theory; and introductory analysis. Specialized courses are selected from subjects such as the following, according to a student's speciality: mathematical logic; group theory; rings and modules; category theory; algebraic number theory; class field theory; commutative algebra; complex analysis; theory of ordinary differential equations; theory of partial differential equations; Fourier series and transforms; topics in general relativity; mathematical foundations of quantum mechanics; coding theory; information theory; discrete time control systems; operations research; algebraic topology; topological and lie groups; statistical inference; probability and stochastic processes; markov processes; multi-variate statistical analysis; algebraic K theory; and modular representation.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.Sc., B.A.) or the equivalent.

64641 Programmes in computer science

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions, seminars and practice sessions in systems analysis, the theory and practice of computer functioning, new applications of computers, etc. Three or four years of study are normally required with upwards of one third of the programme usually being selected from courses in computer science.

Principal course content usually includes general mathematics; calculus; differential equations; probability theory; and introductory analysis. Specialized courses are usually selected from the following according to a student's speciality : the Egdon computer system, Fortran, advanced Algol, and other languages; machine codes; on-line systems; programme documentation; computer structures and hardware; computer systems and systems programmes; batch-processing systems; multi-access systems; queuing problems in computer systems; simulation; data structures and their application; information storage and retrieval; computer programming in machine-orientated and user-orientated languages; design of computer systems and associated hardware and software; numerical methods; non-numerical methods; numerical analysis; combinatorial theory; statistical programming; information science and library organization.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.Sc., B.A.) or the equivalent.

650 Medical and para-medical programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to a first university degree or equivalent, dealing with theoretical and practical aspects of medicine and health. These programmes are primarily concerned with education in the prevention, diagnosis and treatment of human illness and injury. At this level, the programmes typically emphasize the theoretical, general and scientific principles of the subjects included, although practice, including specified time spent as an employee in a working situation, constitutes an important element in most programmes.

Important kinds of programmes include those dealing with aspects of medicine and surgery as required for the practice of medicine, aspects of dentistry, stomatology, odontology, required to practise dentistry; aspects of pharmaceutical practice, nursing (particularly public health nursing), medical technology concerned with diagnosis and treatment requiring a strong theoretical background, rehabilitation medicine, public health and hygiene, etc. Background courses usually included are relevant ones in biological sciences (e.g. zoology, microbiology, vertebrate anatomy and physiology), chemistry (e.g. organic chemistry), biochemistry, physics (especially X-ray and other radiation physics), psychology, social sciences, and the humanities.

Except for refresher courses and special courses on new methods and techniques, these programmes are usually followed full-time in a university, college or teaching hospital. They are rarely, if ever, conducted at this level by correspondence, radio or television broadcast.

Usual minimum educational prerequisite is completion of second level education, second stage. In many cases at least two years of pre-medical education in specified subjects, following completion of second level education, are compulsory for admission.

Usual award for successful completion of a programme is an appropriate bachelor's degree or diploma. In some countries a doctorate is awarded for some programmes at this level (e.g. M.D., D.D.S.).

65002 Programmes in medicine and surgery

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, hospital and laboratory instruction dealing with the diagnosis and treatment of disease. The theoretical and general principles of the subjects studied are emphasized.

Principal course content usually includes specialized medical subjects such as human anatomy, physiology; pathology, surgery; general medicine; preventive medicine, public health medicine, and nuclear medicine; obstetrics, gynaecology, neurology, paediatrics, anaesthesiology, psychiatry, radiology and pharmacy. Background courses often included are vertebrate anatomy and physiology, biochemistry, microbiology, immunology, serology, haematology, pharmacology, etc.

Usual minimum educational prerequisite is completion of second level education, second stage. Some institutions require successful completion of a pre-professional programme in medicine.

Usual award for successful completion is a bachelor's degree in medicine and surgery and, in some jurisdictions, the degree of doctor of medicine.

65012 Programmes in dentistry, stomatology, odontology

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, hospital and laboratory instruction dealing with the principles and practices of dental care. A broad background in the social sciences and related subjects is also provided.

Principal course content usually includes subjects such as general dentistry, oral anatomy and physiology, oral pathology, general and local anaesthesia, oral surgical procedures, endodontics, orthodontics, paedodontics, prosthodontics, periodontics, dental jurisprudence, dental ethics and practice management. Background courses often included are histology, haematology, immunology, serology, pharmacology, biochemistry, microbiology, radiobiology, and medicine.

Usual minimum educational prerequisite is completion of second level education, second stage. Some institutions require successful completion of a pre-professional programme in dental science.

Usual award for successful completion is a bachelor's degree in dentistry, and, in some jurisdictions, the degree or doctor of dental science.

65022 Programmes in pharmacy

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of dispensing drugs and medicines.

Principal course content usually includes subjects such as drug calculation, drug preparations, phyto-chemistry, pharmacognosy, dispensing pharmacy, pharmaceutical investigation, product development, and history of pharmacy. Background courses often included are biochemistry, pharmacology, basic anatomy and physiology, organic chemistry and business management.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a bachelor of science degree or its equivalent.

65032 Programmes in nursing

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, hospital, and laboratory instruction dealing with the principles and practices of caring for the sick with particular attention to public health nursing.

Principal course content usually includes subjects such as nursing techniques and procedures, anatomy and physiology, psychiatric nursing, paediatric nursing, obstetrical nursing, geriatric nursing, and public health nursing. Background courses often included are general chemistry, biochemistry, pharmacology, microbiology, sociology, and psychology.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a bachelor of science degree in nursing or its equivalent.

65042 Medical technology programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, hospital and laboratory instruction dealing with the principles and practices of laboratory medicine. These programmes are primarily concerned with applying laboratory methods in diagnostic and treatment procedures; programmes primarily concerned with laboratory techniques in the physical sciences being classified in 642, Natural science programmes.

Principal course content usually includes specialized medical laboratory technology subjects such as microbiology, blood banking, haematology, pharmacology, clinical chemistry, and histology. Background courses often included are anatomy, physiology, serology, virology, psychology, sociology, and general chemistry.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a bachelor of science degree or its equivalent.

65052 Rehabilitation medicine programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, hospital and laboratory instruction dealing with the principles and practices of rehabilitating physically or mentally disabled persons.

Principal course content usually includes specialized subjects such as basic anatomy and physiology, kinetics, electrotherapy, rehabilitation techniques, speech pathology, audiology, and auditory pathology. Background courses often included are linguistics, acoustics, semantics, phonetics, sociology, general psychology, clinical psychology, and physical education.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a bachelor of science degree or its equivalent.

65062 Programmes in hygiene

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with items that affect public health such as communicable diseases; hygienic standards in food and water supply; disposal of garbage, sewage, etc.

Principal course content usually includes subjects such as biology, chemistry, biochemistry, microbiology, immunology, virology, parasitology, sanitation, communicable diseases, quarantine, nutrition, and public health. Background courses often included are basic anatomy and physiology; statistics and population dynamics; food, milk and water inspection; psychology and sociology.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a bachelor of science degree or its equivalent.

65099 Other medical and para-medical programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, hospital and laboratory instruction dealing with the diagnosis and treatment of disease and not included in any of the above programme groups. The theoretical and general principles of the subjects studied are emphasized.

Principal course content will depend upon the particular specialities but all are likely to include study of human anatomy, physiology and pathology, medical laboratory procedures, and public health. Background courses will include appropriate specialities in biology, chemistry, physics, psychology, other social sciences, mathematics, and statistical analysis.

Usual minimum educational prerequisite is completion of second level education, second stage. Some institutions may require completion of a pre-professional programme in medicine for some of the specialities included.

Usual award for successful completion is a bachelor of science degree or the equivalent.

654 Engineering programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to a first university degree or equivalent, concerned with the theory, experimental techniques, and, when applicable, field work methods of one or more branches of engineering science. These programmes stress the theoretical and scientific principles of the subjects included as well as the mastery of experimental techniques as a basis for research and investigation.

The principal kinds of programmes included are chemical engineering (e.g. physical chemistry, chemical process control, polymer technique, electrochemistry); civil engineering (e.g. structural engineering, highway engineering, and hydraulic engineering); electrical and electronics engineering; industrial engineering (e.g. organization and methods engineering, production planning); metallurgical engineering (i.e. extractive metallurgy); mining engineering; mechanical engineering (including i.a. mechanical, marine, aeronautical and automotive engineering and naval architecture); and agricultural and forestry engineering. Programmes in any of the specialized areas of engineering usually include background courses in other branches of engineering as well as relevant courses in natural sciences, chosen to supplement and heighten understanding of the major speciality, and most such programmes also include selected courses in mathematics, statistics, computer science, social science, and the humanities.

Programmes may be full-time or part-time, day or evening. At this level, however, most programmes are full-time, although students may undertake them on a part-time basis. The part-time programmes are mainly refresher courses. Most of the programmes are conducted in universities, technical colleges or institutes, through regular lectures, seminars, laboratory periods, and field work, but some are provided through correspondence or through broadcasts (radio or television).

Usual minimum educational prerequisite is completion of second level education, second stage, although in exceptional cases mature students may be admitted with lower educational qualifications upon demonstrating ability to handle the subject matter at this level.

Usual award for successful completion of a programme is a university degree (B.Sc.(Eng.); B.Eng.; B.E.; etc.) or an equivalent diploma.

65412 Chemical engineering programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with principles and practices of chemical engineering. Chemical engineering is largely concerned with the application of chemistry to industrial processes, with the design, construction and operation of plants that use or produce chemicals and with the development and production of a large variety of materials such as synthetic fibres, plastics, drugs, fertilizers, etc.

Principal course content usually includes basic courses in chemistry such as inorganic chemistry, organic chemistry, physical chemistry; specific courses in chemical engineering such as chemical thermodynamics, chemical process analysis, chemical process control, chemical unit design, chemical unit operation, chemical plant design. These programmes usually include some related courses in such engineering fields as civil, electrical, mechanical and metallurgical engineering, as well as background courses in such fields as mathematics, physics, and biology.

Usual minimum educational prerequisite is completion of second level education, second stage, usually with emphasis on natural sciences.

Usual award for successful completion is a university degree (B.Sc. (Eng.); B.Eng.; B.E.Chem.; etc.) or the equivalent.

65416 Civil engineering programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practice of civil engineering. Civil engineering is concerned with the design and construction of structures of steel, timber, reinforced concrete and other materials, highways, railways, canals and airports; hydraulic engineering for hydro-electric

power, water supply, drainage and irrigation; harbour, river and coastal works, municipal layout and servicing with roads, water distribution, sewers, and sewage disposal.

Principal course content usually includes some of the following : strength of materials; structural engineering; hydraulic engineering; soil mechanics and foundations; highway engineering; concrete and reinforced concrete construction; and water supply and sewerage construction. Background courses usually include mathematics, natural sciences such as physics and chemistry, basic engineering sciences such as thermodynamics and fluid mechanics, and land surveying and photogrammetry.

Usual minimum educational prerequisite is completion of second level education, second stage, usually with emphasis on science subjects.

Usual award for successful completion is a university degree (B.Sc. (Eng.); B.Eng.; B.E.Civil; etc.) or the equivalent.

65422 Electrical and electronics engineering programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practice of electrical and electronics engineering. The field of activity associated with electrical and electronics engineering is a wide one, ranging from the theory and practice of the generation, transmission and distribution of electric power through communication systems, aerospace electronic systems, electronic computer design and construction, and the design and construction of biomedical electronic apparatus. These are examples, and are not intended to be exhaustive.

Principal course content usually includes some of the following : electromagnetic theory; electric networks and systems; electromechanical energy conversions and electric mechanics; power systems; electric measurements; electronic circuits; communication systems; control systems and servomechanisms; and computer technology. Background courses usually include engineering mathematics; basic sciences such as physics and chemistry; and basic engineering sciences, including engineering materials.

Usual minimum educational prerequisite is completion of second level education, second stage, usually with emphasis on science subjects.

Usual award for successful completion is a university degree (B.Sc. (Eng.); B.Eng.; B.E.E.; etc.) or the equivalent.

65426 Industrial engineering programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of industrial engineering. Industrial engineering is concerned with the study, effective performance, and operation of integrated systems of personnel, materials and equipment in the production of goods and services.

Principal course content usually includes some of the following : manufacturing processes; industrial organization; work analysis and measurement; project analysis and control; and production planning and control. A substantial number of courses are taken from other engineering disciplines. Generally these courses are selected from a wide choice of electives. Background courses usually include mathematics; operational research; linear programming; natural sciences such as physics and chemistry; economics; and accounting.

Usual minimum educational prerequisite is completion of second level education, second stage, usually with emphasis on science subjects.

Usual award for successful completion is a university degree (B.Sc. (Eng.); B.Eng.; etc.) or the equivalent.

65432 Metallurgical engineering programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of metallurgical engineering. Metallurgical engineering (otherwise known as extractive metallurgy) is concerned with study of the scientific and engineering principles and practices employed in extracting, refining, and shaping metals obtained from ores. Note that physical metallurgy, which is the study of the properties of metals and the utilization of metals and alloys, is included in 64232 - Physics programmes.

Principal course content usually includes some of the following : extraction metallurgy; mineral processing; hydrometallurgy; structure of metals; electrochemistry; mineral beneficiation; and mechanical metallurgy. Background courses usually include mathematics; natural sciences such as physics, chemistry, and geology; and basic engineering sciences such as thermodynamics and fluid mechanics.

Usual minimum educational prerequisite is completion of second level education, second stage, usually with emphasis on science subjects.

Usual award for successful completion is a university degree (B.Sc. (Eng.); B.Eng.; B.E.Met.; etc.) or the equivalent.

65436 Mining engineering programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction and field trips dealing with the principles and practices of mining engineering. Mining engineering is concerned with exploration for mineral deposits, mine development, mine production, and mine plant engineering and design.

Principal course content usually includes some of the following : mineral analysis; underground environmental control; mine valuation; mineral beneficiation; mining methods; petroleum engineering; rock mechanics; mine plant design; and mine safety. Background courses usually include land surveying; mathematics; natural sciences such as physics, chemistry, and geology and basic engineering sciences such as thermodynamics, fluid mechanics and soil mechanics.

Usual minimum educational prerequisite is completion of second level education, second stage, usually with emphasis on science subjects.

Usual award for successful completion is a university degree (B.Sc. (Eng.); B.Eng.; B.E.; etc.) or the equivalent.

65442 Mechanical engineering programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of mechanical engineering. Mechanical engineering is concerned with the design, construction and use of apparatus or machines that generate, transmit, or use power. Included, i.e., are marine, aeronautical, and automotive engineering and naval architecture.

Principal course content usually includes some of the following : thermodynamics; fluid dynamics; machine design; electro-mechanical energy conversion; stress analysis; thermal power generation; heating and air conditioning; system dynamics; internal combustion engines; design and construction of water craft; aerodynamics; design and construction of aircraft and space vehicles; and design and construction of motor vehicles. Background courses usually include mathematics; natural sciences such as physics and chemistry; and other engineering subjects such as properties of metals, fluid mechanics, and some electric and electronic circuitry.

Selected programmes may be offered by some universities, providing specialization in areas such as aeronautical engineering, nuclear engineering, petroleum engineering, marine engineering, or naval architecture.

Usual minimum educational prerequisite is completion of second level education, second stage, usually with emphasis on science subjects.

Usual award for successful completion is a university degree (B.Sc. (Eng.); B.Eng.; B.E.; etc.) or the equivalent.

65453 Agricultural engineering programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction and field work dealing with the principles and practices of agricultural engineering. Agricultural engineering is concerned with the application of mechanization for the development of farm land, soil and water conservation, irrigation, crop production and protection, harvesting, handling, storage and processing of agricultural products and the design of farm structures and machinery; the design and construction of farm equipment and its practical application to agriculture.

Principal course content usually includes some of the following : soil and water conservation; irrigation and drainage design; analysis of agricultural structures and analysis of agricultural production systems.

Elective courses from other engineering disciplines make up part of the programme. Background courses usually include mathematics, natural sciences, and social sciences.

Usual minimum educational prerequisite is completion of second level education, second stage, usually with emphasis on science subjects.

Usual award for successful completion is a university degree (B.Sc. (Eng.); B.Eng.; B.Agric.Eng.; etc.) or the equivalent.

65463 Forestry engineering programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction and field work, dealing with the principles and practices of forest engineering. Forestry engineering is concerned with the application of engineering principles to forestry programmes, with emphasis on logging operations.

Principal course content usually includes some of the following : dendrology, wood technology and utilization; forest management operations; forest mensuration; hydrology; logging production planning and control in logging; logging transportation; and forest economics. Elective courses from other engineering disciplines make up part of the programme. Background courses usually include mathematics; natural sciences such as chemistry and biology; and social sciences such as economics and sociology.

Usual minimum educational prerequisite is completion of second level education, second stage, with emphasis on science subjects.

Usual award for successful completion is a university degree (B.Sc. (Eng.); B.Eng.; B.For.Eng.; etc.) or the equivalent.

65499 Other engineering programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with engineering programmes not included in the above programme groups, such as general engineering, engineering science, and engineering physics. General engineering programmes provide a more diverse background than is obtained in the specialized fields of engineering. Programmes in engineering science and in engineering physics provide special opportunities for candidates to enter the fields of research and development. Engineering physics is concerned with the application of physics and mathematics to the solution of engineering problems.

Principal course content varies according to the particular programme. In general engineering, the programme consists of a selection of engineering subjects covering the basics of the various branches of engineering; in engineering science and engineering physics the programmes are also broadly based in terms of subject matter, but the emphasis is on the theoretical background of the subjects. Programmes in engineering also usually contain an appropriate selection of subjects from the natural sciences such as physics, chemistry, biology, or geology; the social sciences, particularly economics and sociology; and mathematics and statistics.

Usual minimum educational prerequisite is completion of second level education, second stage, usually with emphasis on science subjects.

Usual award for successful completion is a university degree (B.Sc. (Eng.); B.A.Sc.; B.E.Sc.; etc.) or the equivalent.

658 Architectural and town planning programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to a first university degree or equivalent, concerned with the theory, experimental techniques, and, where applicable, field work methods of programmes in structural architecture, landscape architecture, and town or community planning. These programmes stress the theoretical and scientific principles of the subjects included as well as mastery of the techniques and methods used. Experimental techniques and methods are also stressed as a basis for research and investigation.

The principal kinds of programmes included are those dealing with structural architecture (e.g. the history of architecture, structural theory, integrated building systems, social and community implications of architecture, etc.), landscape architecture (e.g. landscape graphics, principles of landscape architecture, landscape design, etc.), and town or community planning

(principles of urban planning, social and institutional determinants for physical urban planning, contemporary urban problems, problems and methods of urban redevelopment, etc.). A programme in any aspect of these subjects usually includes background courses in closely related areas such as other disciplines in architecture and town planning, as well as relevant courses in engineering, natural sciences, and social sciences chosen to enhance the student's understanding of his major subject. In the case of landscape architecture, relevant agricultural specialities may also be included. Most programmes also include selected courses in mathematics, the humanities, commercial or business administration, and, where relevant, computer science.

Programmes may be full-time or part-time, day or evening. At this level, however, most programmes are full-time, although students may undertake them on a part-time basis. The part-time programmes are mainly refresher courses. Most programmes are conducted in universities, technical colleges, or institutes, but some are provided through correspondence or through broadcasts (radio or television).

Usual minimum educational prerequisite is completion of second level education, second stage, although in exceptional cases mature students may be admitted with lower educational qualifications on demonstrating ability to handle the subject matter at this level.

Usual award for successful completion of a programme is a university degree (B.Sc., B.Arch.) or the equivalent.

65802 Programmes in structural architecture

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, laboratory and seminar or group instruction dealing with the principles and practices of architecture. Programmes at this level stress the theoretical and scientific principles of the subjects included as well as work on projects designed to develop practical skills.

Principal course content usually includes, i.e., the history of architecture, principles of architectural design; structural design; structural theory; building methods; materials; and assemblies; architectural graphics; integrated building systems; mechanical equipment of buildings; social and community implications of architecture. Background courses designed to enhance the understanding of the major subject often include relevant specialities from engineering (particularly civil engineering), relevant specialities from the natural sciences, social sciences, humanities, commercial and business administration, mathematics, design theory and analysis.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award for successful completion is a university degree (B.Arch., B.Sc.) or the equivalent, e.g. the licence.

65812 Programmes in landscape architecture

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, laboratory and seminar or group instruction dealing with the principles and practices of landscape architecture. Programmes at this level stress the theoretical and scientific principles of the subjects included as well as work on projects designed to develop practical skills.

Principal course content usually includes, i.a., the history of landscape architecture, landscape design, earth grading, drainage, irrigation systems, landscape graphics, planting design, selected courses in structural architecture, and selected courses in agricultural science such as soil chemistry, fertilizer technology, arboriculture, floriculture, etc. Background courses designed to enhance the understanding of the major subject often include courses in town planning, selected specialities in engineering, natural sciences, social sciences, the humanities, and commercial or business administration.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award for successful completion is a university degree (B.Arch., B.Sc.) or the equivalent, e.g. the licence.

65822 Programmes in town planning

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and seminar or group discussion dealing with the principles and practices of

town or community planning. Programmes at this level stress the theoretical and scientific principles of the subjects included as well as work on projects designed to develop an appreciation of community planning techniques and of the practical problems involved.

Principal course content usually includes, i.a., the history of modern urban development; contemporary urban problems; urban planning projects; principles of urban planning; social and institutional determinants for physical urban planning; quantitative methods in urban planning; urban transportation systems in relation to community planning; regional planning and development; metropolitan area development; problems and methods of urban redevelopment. Background courses designed to enhance the understanding of the major subject often include processes and problems of social change, other relevant specialities in urban sociology, relevant specialities in architecture, economics, political science, geography, psychology, natural sciences, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award for successful completion is a university degree (B.Arch., B.Sc.) or the equivalent, e.g. the licence.

662 Agricultural, forestry and fishery programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to a first university degree or equivalent, dealing with theoretical and practical aspects of agricultural, forestry and fishery operations. The programmes are intended to prepare students for careers as agricultural, forestry or fishery scientists in such areas as research, data analysis, management in large-scale enterprises or institutes; as advisers to governments or to enterprises or institutes both public and private, protecting the health of animals; as veterinarians, etc. These programmes typically emphasize the theoretical, general and scientific principles of the subjects included although practical application is not ignored. Students are encouraged to undertake original work, especially in the final phases of the programmes.

Important kinds of programmes include those dealing with aspects of animal husbandry; crop husbandry; horticulture; soil and water sciences; agricultural economics and management of agricultural operations; veterinary science; food sciences and technology; forestry sciences including the cultivation, protection, management of forest crops as well as the science and technology of forest ranges, and protection and management of watersheds and recreational areas; programmes in fishery science and technology including fish cultivation and fishery management. Background courses usually required include biological sciences such as zoology, entomology, botany

and microbiology; chemistry courses of various kinds; social science courses such as those in economics, and sociology; and courses in mathematics and statistics. (Note that agricultural engineering programmes are in 65453 and forestry engineering programmes in 65463.)

Programmes are followed either full-time or part-time, day or evening, and although usually sponsored by a university or technological college, may be conducted by correspondence or through radio or television broadcasts. In the main, however, these programmes are followed by full-time students in universities or similar institutions.

Usual minimum educational prerequisite is completion of second level education, second stage, although in exceptional cases mature students may be admitted with lower educational qualifications upon demonstrating ability to handle the subject matter at this level.

Usual award for successful completion of a programme is a degree or equivalent diploma (usually a B.Sc in agriculture).

66201 General programmes in agriculture

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and field instruction dealing with the principles and practices of agriculture.

Principal course content usually includes some of the following : principles of horticulture; crop production, preservation, and harvesting; principles of animal husbandry; animal breeding, nutrition, genetics; poultry science, dairy science, landscape and agricultural gardening; economics and farm management. Background courses usually include botany, zoology, chemistry, physics, mathematics, biology, microbiology, economics and agricultural engineering.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor's degree (B.Sc) or an equivalent, such as the licence.

66203 Animal husbandry programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and field instruction dealing with the principles and practices of animal husbandry, i.e. the study and investigation of the application of scientific methods in the breeding, nutrition and care of domestic animals (including poultry).

Principal course content usually includes animal (and poultry) breeding, ruminant and non-ruminant nutrition, principles of animal nutrition, genetic improvement of farm animals, animal anatomy and physiology, poultry science, dairy science, and farm management. Background courses often included in addition to general agricultural courses, are those in biological sciences, chemistry, social sciences, etc.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor's degree (B.Sc) or an equivalent such as the licence.

66206 Horticulture programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and field instruction dealing with the principles and practices of horticulture.

Principal course content usually includes some of the following : principles of horticulture, greenhouse methods, soil science, landscape gardening, crop growth and culture, plant physiology, plant genetics, plant pathology, floriculture, fruit and vegetable crops, and nursery management. Background courses usually include botany, biochemistry, chemistry, mathematics and statistics.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor's degree (B.Sc) or an equivalent such as the licence.

66208 Crop husbandry programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, laboratory and field instruction dealing with the principles and practices of crop husbandry.

Principal course content usually includes some of the following : principles of crop husbandry, soil preparation, soil chemistry, seed technology, fertilizer technology, agronomy, pest- and weed-control, and harvesting and preservation of crops. Background courses usually include botany, plant physiology, microbiology, chemistry, farm management, marketing of agricultural products, and statistical analysis.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor's degree (B.Sc) or an equivalent such as the licence.

66212 Agricultural economics programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, dealing with the principles and practices of agricultural economics. Emphasis is given to management theory and to the analysis of forces affecting agricultural organizations.

Principal course content usually includes some of the following : principles of economics, principles of agricultural economics, marketing of agricultural products, production economics, farming systems, farm management and organization, cost control in agriculture, price theory, economics of natural resource use, agriculture and government. Background courses usually include : economic theory, money and banking, labour economics, statistics, principles of accounting, botany, zoology, chemistry, soil science, principles of crop husbandry, principles of animal husbandry, agronomy and rural institutions, including co-operatives.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree (B.Sc) or an equivalent such as the licence.

66222 Food sciences and technology programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction. These programmes are designed for the study of the applications of chemistry, bacteriology, engineering and other sciences to food processing and preservation.

Principal course content usually includes specialized food-related subjects such as the principles of food technology, food chemistry, food preservation, food processing systems, dairy technology, meat technology, poultry technology, milk and water sanitation and nutrition. Background courses often included are general chemistry, microbiology, biology, biochemistry, general physics, mathematics, statistical analysis.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree (B.Sc) or an equivalent such as the licence.

66226 Soil and water sciences programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of soil and water sciences.

Principal course content usually includes some of the following : principles of soil conservation, soil physics, soil chemistry, soil fertility, soil survey methods, soil classification, water conservation, protection of watersheds and general soil and water science. Background courses usually include : chemistry, physics, biology, microbiology, geology, geomorphology, mathematics, statistical analysis and geography.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor's degree (B.Sc) or an equivalent such as the licence.

66232 Programmes in veterinary medicine

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practice of veterinary medicine.

Principal course content usually includes some of the following : veterinary anatomy, neuroanatomy, histology, embryology, genetics, and physiology; veterinary pathology, pharmacology, parasitology, and radiology; veterinary surgery, obstetrics, public health; animal diseases and environmental medicine; hospital practice and veterinary pharmaceutical dispensing. Background courses usually include : general biology, comparative vertebrate anatomy and physiology, biochemistry, microbiology, immunology, general chemistry, general physics.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme. Some institutions require successful completion of a pre-professional programme in veterinary science.

Usual award for successful completion is a bachelor's degree or a licence in veterinary science. The professionals are called doctors of veterinary medicine.

66249 Other programmes in agriculture

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, laboratory and field work instruction in agricultural specialities not covered by any of the above programme groups. Programmes at this level emphasize the theoretical principles of the subjects studied, although practical application of technology is not neglected.

Principal course content is related to the particular speciality such as apiculture, sericulture, other insect culture; fur farming; mushroom growing; growing of trees for their sap, as rubber production or maple sugar production. In addition to study of the particular speciality, these programmes include courses in agricultural subjects such as horticulture, animal husbandry, and crop husbandry, along with background courses in such fields as zoology, botany, microbiology, entomology, chemistry, farm management, marketing, social sciences and statistical analysis.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a bachelor's degree (B.Sc) or an equivalent such as the licence.

66262 Forestry programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and field instruction dealing with the principles of forest resource management and forest products.

Principal course content usually includes specialized forest-related subjects such as forest biology, forest soils, management of forestry resources, forest vegetation manipulation, forest pathology, dendrology, forest photogrammetry, dynamics of forest stands, wood science, non-timber resources, and forest economics. Background courses often included are general biology, general chemistry, general physics, plant physiology, economics, and mathematics.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor's degree (B.Sc) or an equivalent such as the licence.

66272 Programmes in fishery science and technology

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of fishery science.

Principal course content usually includes specialized fisheries science subjects such as ichthyology, fisheries management, fishery economics, fish culture, fish propagation, nets and other gear, international fish distribution, and fishery aspects of water pollution. Background courses often included are : invertebrate zoology, fundamentals of limnology, ecology, principles of physiology, general chemistry, general physics, mathematics, economics and statistical analysis.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor's degree (B.Sc) or an equivalent such as the licence.

666 Home economics (domestic science) programmes

This field includes a variety of programmes in education at the third level : first stage, of the type that leads to a first university degree or equivalent, concerned with the theory and practice of domestic science, including household arts. In these programmes the theoretical and scientific principles of the constituent subjects are stressed, but problems of practical application also receive attention.

The principal kinds of programmes included are those covering general home economics, those with emphasis on household and consumer food research and nutrition, those with emphasis on household arts such as interior decoration, clothing design and dressmaking, and household management and budgeting, etc. Typically, these programmes include a broad range of subject matter covering the natural sciences, social and behavioural sciences, fine arts, and humanities. Programmes emphasizing a particular subject matter usually include courses in a variety of other subjects that supplement the speciality. In most cases the programmes also include practical work and demonstration projects and introduction to basic research.

Programmes may be full-time or part-time, day or evening. At this level most programmes are full-time, although students may undertake them on a part-time basis. Such part-time programmes as exist are usually of the refresher or retraining type. Most programmes are conducted by universities or similar institutions. Programmes of this type are sometimes provided through broadcasts (radio or television).

Usual minimum educational prerequisite is completion of second level education, second stage. In exceptional cases mature applicants having relevant work experience may be admitted with somewhat lower educational qualifications upon demonstrating ability to handle the subject matter.

Usual award for successful completion of a programme is a university degree (B.A., B.Sc) or the equivalent.

66601 General home economics (domestic science) programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and seminar discussion and laboratory sessions dealing with the principles and practices of home economics. A broad background in home economics is generally provided in these programmes.

Principal course content usually includes specialized courses in clothing and textiles; child development and family life; food and nutrition; consumer education; housing; home furnishing; household management and family economics. Background courses often included are general chemistry, microbiology, physiology, general psychology, developmental psychology, economics, sociology, and anthropology.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme.

Usual award for successful completion is a university degree (B.A. B.Sc) or the equivalent.

66612 Programmes in home economics with emphasis on household and consumer food research; nutrition

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and seminar discussion and laboratory sessions dealing with the principles and practices of household and consumer food research and nutrition.

Principal course content usually includes basic home economics courses (as in 66601) along with specialized courses in food study and food management; experimental food; nutrition and therapeutic nutrition. Background courses often included are general biology, microbiology, biochemistry, physiology, mathematics, psychology, and statistics.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme.

Usual award for successful completion is a university degree (B.A., B.Sc) or the equivalent.

66632 Programmes in home economics with emphasis on household arts

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and seminar discussion and laboratory sessions dealing with the principles and practices of design and its application to (a) house interiors or (b) clothing. Programmes with an emphasis on the household arts are closely allied to many in the fine arts.

Principal course content usually includes basic home economics courses (as in 66601) along with a selection from : design; the history of art; furniture and interior design; house planning; textile design; apparel design; draping; flat-pattern designing; the history of costume design; textiles; dressmaking and tailoring. Background courses often

included are art, history, psychology, chemistry, organic chemistry, social sciences.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A., B.Sc) or the equivalent.

66699 Other home economics (domestic science) programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and seminar discussion and laboratory sessions dealing with the principles and practice of home economics not included in the above programme groups (i.e. 66601, 66612 and 66632). These programmes are concerned with the applications of science to problems connected with homes or institutions such as the preparation of meals; the storage of foods; the treatment of textiles; laundering; etc.

Principal course content depends on the area of specialization. In addition, courses in chemistry, physics, biology, and physiology are usually included.

Usual minimum educational prerequisite is completion of second level education, second stage, usually in a science programme.

Usual award for successful completion is a university degree (B.A., B.Sc) or the equivalent.

699 Other education at the third level : first stage, of the type that leads to a first university degree or equivalent

This field includes a variety of programmes in education at this level : first stage, of the type that leads to a first university degree or equivalent, not included in the above list of fields, i.e. 601 to 666.

Examples of programmes included here are those primarily dealing with journalism, radio and television broadcasting, public relations, other communications arts; criminology, other civil security and military science; library science, social welfare, vocational counselling, environmental questions, etc. In these programmes the theoretical and scientific principles of the constituent subjects are stressed but problems of practical application and an understanding of the institutions involved also receive attention.

Programmes may be full-time or part-time, day or evening. At this level, however, most programmes are full-time, although students may undertake them on a part-time basis. Such part-time programmes as exist are mainly refresher or retraining courses. Most programmes are conducted by universities, colleges or similar institutions, but some are provided by military schools, police schools, and the like. A wide variety of agencies sponsor these programmes.

Usual minimum educational prerequisite is completion of second level education, second stage. In exceptional conditions, applicants may be admitted with lower educational qualifications if they demonstrate ability to handle the material at this level.

Usual award for successful completion of a programme is a university degree (B.A., B.Sc., B.J.) or the equivalent.

69902 Journalism programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of study of the theory and practices of journalism as part of the field of mass communication. Programmes involve lectures in specific vocational subjects, seminars, workshop sessions and often internship with a publication and individual guided research into journalistic practices.

Principal course content usually includes subjects of a general nature such as sociology or economics; a foreign language; history; current affairs; international organization; and political science. The specialized part of the programmes usually includes subjects such as the place of the press in modern society; modern news reporting; editorial practice and policy; ethics of journalism; and government control of the mass media. The internship period is an important element as is competence in writing the mother tongue and/or a current language.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.J., B.A.) or the equivalent.

69904 Programmes in radio and television broadcasting

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, consisting of study of the theory and practice of radio and television broadcasting as part of the field of mass communication. Programmes consist of lectures in specific vocational subjects, seminars, and workshops, and often internship with a radio or television broadcasting station.

Principal course content usually includes subjects of a general nature such as sociology or economics; a foreign language; and history. The specialized part of the programmes usually includes subjects such as broadcasting media in modern society; broadcasting technique, e.g. announcing broadcasting journalism, the art and craft of radio and television production, government regulation of broadcasting, advanced script writing, the ethics of mass communication, and work and study at a radio or television broadcasting station or both. The internship period is an important element.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

69907 Public relations programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, consisting primarily of classroom sessions, seminar or group discussion, and studio work or practical on-the-job experience designed to provide training in both the practical and the theoretical aspects of public relations.

Principal course content usually includes general subjects in the liberal arts and social sciences, in addition to prescribed courses such as creative writing and the effective use of language; introductory business; business administration and organization; business psychology; marketing; industrial promotion; advertising; the use and understanding of the mass media; conducting and interpretation of public opinion polls; sociology.

Programmes, usually full-time, require three or four years of study in a college of applied arts and technology or in the communications school of a university.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

69909 Other programmes in communications arts

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, consisting primarily of classroom sessions, seminar or group discussion and studio work or practical on-the-job experience designed to provide training in communications arts other than those described in the above programme groups (i.e. 69902, 69904 and 69907).

Principal course content usually includes courses in the liberal arts and social sciences, in addition to prescribed courses in areas of specialization.

Programmes, usually full-time, require three or four years of study in a college of applied arts and technology or in the communications school of a university.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

69913 Programmes in criminology

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions and seminar or group discussion dealing with the principles and practices of criminology.

Principal course content includes, i.a., introduction to criminology, the principles of criminal investigation, the psychopathology and psychodynamics of crime, the components of normal and abnormal personality, methods of personality measurement and clinical diagnosis, social origin and characteristics of crime, the sociology of legal and correctional institutes, the history of crime and its treatment, scientific methodology, law enforcement policies and social structure, criminal law in action, field work in criminology. Background courses include economics, history, the social and behavioural sciences, law and jurisprudence.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A., B.Sc) or the equivalent.

69919 Other civil security and military programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions and on-the-job experience designed to provide training in the principles and practice of military science.

Principal course content usually includes, i.a., the principles of warfare; the military impact of leadership; the evolution of military tactics; origins and evolution of weapons and weaponry; the history of sea and air power; the evolution of naval, land, and aerial warfare; amphibian warfare; navigation and naval operations; basic meteorology for aviation; navigation by dead reckoning and pilotage; radio and radio navigation; fundamentals of military law; the world's political and military systems. Background courses usually include economics, history, the social and behavioural sciences, law and jurisprudence.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A., B.Sc) or the equivalent. Awards may sometimes be in the form of a promotion to higher military rank or an appointment to a military staff.

69922 Library science programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, dealing with the principles and applications of library science. The programmes, consisting of lectures, seminars, discussion groups and practical on-the-job training, are generally of two types: (1) one-year post-degree programmes specializing solely in library science, and (2) first-degree programmes involving several subject areas one of which is library science. Both types of programme deal with all kinds of records, including microfilm, magnetic tape, etc.

The specialized (i.e. library science) content of both programmes includes prescribed courses in such subjects as reference, classification and cataloguing, systems analysis, development and use of thesauri, administration, technical services, and bibliography. Programmes are usually given in universities.

Usual minimum educational prerequisite for the first type is possession of a university degree; for the second type, it is completion of second level education, second stage.

Usual award for successful completion is a bachelor's degree or the equivalent.

69932 Social welfare programmes

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, consisting of lectures, seminars, group discussions and field work dealing with the principles and practices of social welfare work. While emphasis is given to both the practical and theoretical aspects of social work, the theoretical, general and historical basis of the subjects studied are stressed.

Programmes provide students with a broad background in social work through a number of prescribed core courses in such subjects as human growth and behaviour, normal and abnormal psychology, sociology, psychiatry, medical information, social welfare policy, social case work, and social agency administration. Some programmes permit special emphasis on a particular aspect of social work.

Programmes usually involve one to two years' full-time study in a school of social work or a university.

Usual minimum educational prerequisite is completion of second level education, second stage, preferably in the social or behavioural sciences, and demonstrated affinity for social work. Mature students with related work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a bachelor's degree or the equivalent.

6942 Programmes in vocational counselling

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, consisting principally of classroom sessions, seminar or group discussion and practical work in and observation of counselling procedures.

The programmes cover the principles and practices of counselling designed to enable individuals to assess their assets and shortcomings with respect to occupations so as to make satisfactory vocational decisions.

The programmes, usually full-time, require a minimum of one year's study. Practical work carried on under supervision may take up to one quarter or one third of the total time.

Principal course content usually includes, i.a., child and adolescent development; learning and motivation; social and organizational behaviour; cognitive processes; human traits (intelligence, aptitudes, interests and personality); vocational development; human relations and communication; utilization of information; decision-making; experimental methods; interviewing behaviour modification. Emphasis is placed on the techniques of constructing and applying tests.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

69952 Programmes in environmental studies

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, dealing with the principles and practices of environmental science, i.e. the analysis of environmental problems and environmental protection and rehabilitation.

Through lectures, seminars, group discussion and demonstration, usually involving an inter-disciplinary approach, a background is provided in such subjects as the study and control of environmental pollution, the protection of the environment in all its aspects, the protection of natural resources, and the preservation of the earth's ecology. Programmes consist of a wide variety and combination of courses drawn from the social, behavioural, natural, and physical sciences and their applications.

Programmes are usually of three to four years' duration in a university. Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A., B.Sc) or the equivalent.

69962 Programmes in physical education

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, consisting primarily of classroom instruction and gymnasium exercises dealing with the essentials of physical education.

Principal course content usually includes some of the following : adaptive physical education; analysis of physical education activities for the elementary schools; statistical methods in health, physical education and recreation; physical fitness appraisal; methods and principles of athletic coaching; human anatomy and physiology; principles of body mechanics; kinesiology; organization and administration of health and physical education

in schools.

Much attention is paid to the achievement of competence and skill in athletics such as running and jumping; in sports such as football or hockey; in gymnastics and games; in activities such as boxing, wrestling and judo; in the achievement of rhythmic excellence for example, in dancing.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A., B.Sc) or the equivalent.

69972 Programmes in nautical science

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, consisting primarily of classroom sessions, laboratory exercises and in-ship training dealing with the essentials of the nautical sciences.

Principal course content usually includes some of the following : ship-building; naval architecture; stability; seamanship; spherical trigonometry; nautical astronomy; navigation; navigational aids; meteorology; oceanography; hydrography; marine biology; fishing gear; fish detection; processing of fish; fisheries law; marine law.

Usual minimum educational prerequisite is completion of second level education, second stage, preferably in the field of science. Mature students with related work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a university degree (B.Sc) or the equivalent.

69999 Other programmes of education at the third level : first stage, of the type that leads to a first university degree or equivalent. n.e.c.

Programmes at the third level : first stage, of the type that leads to a first university degree or equivalent, consisting of lectures, seminars, group discussion and laboratory or field work designed to provide professional training in subject areas other than those defined above (i.e. in 69902 to 69972).

These programmes usually last from three to five years, full-time, in a college or university, and consist of various prescribed and/or elective courses.

Usual minimum educational prerequisite is completion of second level education, second stage.

Usual award for successful completion is a university degree (B.A., B.Sc) or the equivalent.

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7. EDUCATION AT THE THIRD LEVEL : SECOND STAGE,
OF THE TYPE THAT LEADS TO A POSTGRADUATE
UNIVERSITY DEGREE OR EQUIVALENT

The "core" at this level consists of programmes of education for those who have completed requisite programmes at the third level : first stage, of a type that leads to a first university degree, and who choose to continue their education toward a higher degree or equivalent award. These are programmes of high level professional education and those involving independent research of a high order. In almost all cases students follow programmes in the same subject field as for their first degrees, but of a more specialized character, the study and research being concentrated on one or two sub-divisions of the major subject. The theoretical and philosophical aspects of the subjects studied are emphasized even more at this level than for the first university degree. Subject-matter fields within which the higher specialization takes place are the same at this level as in the one immediately preceding, and programmes are usually of one to four years' duration.

Programmes included in this category are of two types: one being mainly an extension of the classroom-laboratory-seminar type of learning characteristic of category 6 and leading usually to a higher degree such as a Master's degree or a higher professional qualification such as a specialist qualification in Medicine; the other consisting mainly of original research, usually of a largely independent nature, resulting in a dissertation worthy of publication, and culminating in a degree or other award of the highest level (usually a doctorate). This category (7) could be sub-divided into two "level" categories (e.g. 7 and 8) on the above basis because the two kinds of programmes are so different in content and method. It is not considered feasible to do this internationally at present but some countries might find such a division useful for national statistics.

Degrees and equivalent diplomas or other certificates are usually awarded after completion of a series of examinations and often after the presentation and defence of a thesis. These higher degrees and awards take various forms and have different titles from country to country, some of them being master of arts, master of science, *diplôme d'études supérieures*, doctorates of various kinds. These are not given as equivalents, but merely as examples.

As with level 6, few programmes at this level are encountered outside the university system in most countries. The definition of "postgraduate university degree" follows from that given above for "first university degree". Cases will be encountered in some countries where professional societies conduct programmes that would be classed as "postgraduate", e.g. in engineering, medicine or law. Employers of young university graduates, particularly larger employers in industries such as electronics, aerospace, chemicals, who operate research and development departments or units, give postgraduate instruction that does not lead to a higher degree but would be classed at this level. Refresher courses at this level are quite common.

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714 Programmes in educational science and teacher training

This field includes a variety of programmes in education at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, dealing with theoretical and practical aspects of school teaching, the principles of education, comparative education, curricula and educational psychology. Emphasis is given to the theoretical principles of the subjects included in these programmes, and original research work, as substantiated by the presentation and defence of a scholarly thesis, is usually an important element. The programmes followed by individual students at this level are usually concerned with one specialized area of the educational sciences, but practical aspects such as practice teaching and other observation of and participation in educational processes are important in some cases.

Important kinds of programmes are : general teacher training programmes (although these are less common here than at levels 5 and 6); specialized programmes in terms of those to whom the education is to be directed (e.g. pre-school and kindergarten teaching, adult education teaching; teaching of teacher trainees); specialized programmes on problems of teaching particular subjects (such as languages, science or mathematics). The programmes tend to be more highly specialized because they are designed for university graduates most of whom are already qualified teachers and many of whom have had some years of teaching or related working experience. The objective of these programmes is to develop high-level specialists in particular aspects of education including teaching and related activities such as supervision and inspection of teaching, educational counselling, educational planning and economics of education. Background courses are not so important here as at other educational levels but many programmes include related specialities such as courses in administration, psychology, educational guidance, statistics, etc.

In the main these programmes are full-time but many are carried on in school vacation periods or as part-time activities by employed teachers. Other examples of part-time programmes are refresher courses and special courses to introduce new methods and techniques.

Usual minimum educational prerequisite is completion of education at the third level : first stage, of the type leading to a first university degree or equivalent, and an initial qualification in teaching.

Usual award for successful completion is a higher university degree (e.g. M.Ed., D.Ed. or Ph.D.) or higher diploma (e.g. Diplôme d'études supérieures).

71401 General programmes in the educational sciences

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, consisting of study, seminars or group discussion, and research designed to prepare specialists in various branches of education and teaching. Emphasis may be placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include the history of education, the theory of comparative education, of teaching; curriculum development; and the use of teaching aids such as teaching machines, audio-visual equipment, etc. Subject areas within which background studies tend to fall include fields allied to the student's major subject as well as relevant specialities in other related fields such as the humanities, social sciences, natural sciences, religion and theology, law and jurisprudence, foreign languages, etc. Students may specialize in one particular area, e.g. history of education, philosophy of education, comparative education.

Usual minimum educational prerequisite is completion of third level, first stage, education of the type that leads to a first university degree, usually in the same or a related field; together with the holding of an initial teaching qualification. Students in these programmes have frequently had teaching experience.

Usual award for successful completion is a Master's degree or equivalent. If research has played an important rôle, together with the presentation of a thesis or dissertation, a Doctor's degree may be awarded, usually after a period of study lasting at least 2 or 3 years.

71404 Programmes in education with specialization in curriculum development in non-vocational subjects

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, consisting of study, seminar or group discussion and research designed to prepare specialists in the curriculum and methods of teaching in a non-vocational subject area such as history, science, languages, chemistry, economics, mathematics. Attention is paid to the theory of curriculum development, psychology and sociology.

Through seminars, directed reading, and independent research, the student seeks to acquire a comprehensive grasp of one field within the broad area of non-vocational education and may also prepare one or more minor fields in related or other areas of education. In addition, programmes often include background study in the subject to be taught and in related subject-matter areas.

Programmes usually last from one to three years, full-time, and consist of a number of prescribed courses, demonstrated facility in one or more foreign languages, and usually the preparation of a thesis or dissertation involving original investigation of a particular problem within the major subject.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree, usually in the same or a related field, the holding of an initial teaching qualification, and demonstrated potential for study at the graduate level. Some programmes may require experience in teaching or administration at an appropriate level.

Usual award for successful completion is a Master's degree or equivalent. If research has played an important rôle, together with the presentation of a thesis or dissertation, a Doctor's degree may be awarded, usually after a period of study lasting at least two or three years.

71408 Programmes in education with specialization in curriculum development in vocational subjects

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, consisting of study, seminar or group discussion and research designed to prepare specialists in the curriculum and methods of teaching in a practical or vocational subject area such as the fine arts, home economics, commercial subjects, agriculture, etc. Attention is paid to the theory of curriculum development, psychology and sociology.

Through seminars, directed reading and independent research, the student seeks to acquire a comprehensive grasp of one aspect of the broad subject areas; such as the teaching of industrial arts, vocational or technical courses at the first, second or third (non-degree) level of education, and may also prepare one or more minor subjects in related areas of teacher training. In addition, a programme sometimes includes background study in aspects of the subject to be taught and in other related subject-matter areas.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree, usually in the same or a related field, the holding of an initial teaching qualification, and demonstrated potential for study at the graduate level. Some programmes may require experience in teaching or administration at an appropriate level.

Usual award for successful completion is a Master's degree or equivalent. If research has played an important rôle, together with the presentation of a thesis or dissertation, a Doctor's degree may be awarded, usually after a period of study lasting at least two or three years.

71412 Programmes with specialization in early childhood education

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, designed to prepare specialists in the theory and practice of dealing with young children and of teaching in education preceding the first level (i.e. kindergarten level). Attention is paid to psychology, sociology and to the theory of curriculum development.

Through seminars, directed reading and independent research the student seeks to acquire a comprehensive grasp of one field within the general area of "kindergarten" education, such as reading instruction, child psychology, etc., and may also prepare one or more minor subjects in related or other areas of education. Programmes usually last from one to three years' full-time study and may consist of a certain number of prescribed courses, demonstrated facility in one or more foreign languages and the preparation of a thesis or dissertation involving original research into a particular problem within the major subject.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree, usually in the same or a related field, the holding of an initial teaching qualification, and demonstrated potential for study at the graduate level. Some programmes may require experience in teaching or administration at an appropriate level.

Usual award for successful completion is a Master's degree or equivalent. If research has played an important rôle, together with the presentation of a thesis or dissertation, a Doctor's degree may be awarded, usually after a period of study lasting at least two or three years.

71416 Programmes with specialization in adult education

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, designed to prepare specialists in teaching and curriculum development in adult or continuing education.

Through seminars, directed reading and independent research, the student seeks to acquire a comprehensive grasp of one field within the general field of adult education such as adult counselling, service for adult education within the community, problems relating to the education of older people, extension and other types of non-formal education; and may prepare one or more subjects in related or other areas of education. Programmes usually last from one to three years' full-time study and may consist of a certain number of prescribed courses, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation involving original research into a particular problem within the major subject.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree, usually in the same or a related field, the holding of an initial teaching qualification, and demonstrated potential for study at the graduate level. Some programmes may require experience in teaching or administration at an appropriate level.

Usual award for successful completion is a Master's degree or equivalent. If research has played an important rôle, together with the presentation of a thesis or dissertation, a Doctor's degree may be awarded, usually after a period of study lasting at least two or three years.

71422 Programmes with specialization in the education of the handicapped

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, designed to prepare specialists in the teaching of handicapped children.

Through seminars, directed reading and independent research, a student seeks to acquire a comprehensive grasp of one field within the general field of teaching the handicapped such as the teaching of physically, visually, aurally, emotionally disturbed, socially maladjusted, mentally or speech handicapped children, and may prepare one or more subjects in related or other areas of education. Programmes usually last from one to three years' full-time study and may consist of a certain number of prescribed courses, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation involving original research into a particular problem within the major subject.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree, usually in the same or a related field, the holding of an initial teaching qualification, and demonstrated potential for study at the graduate level. Some programmes may require experience in teaching or administration at an appropriate level.

Usual award for successful completion is a Master's degree or equivalent. If research has played an important rôle, together with the presentation of a thesis or dissertation, a Doctor's degree may be awarded, usually after a period of study lasting at least two or three years.

71432 Programmes in education for teacher-trainers

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, designed to prepare specialists in the training of teachers.

Through seminars, directed reading and independent research, a student seeks to acquire a comprehensive grasp of one field within the general field of teacher training, such as educational foundations, or teaching methods, and may prepare one or more subjects in related or other areas of education. Programmes usually last from one to three years' full-time study and may consist of a certain number of prescribed courses, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation involving original research into a particular problem within the major field.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree, usually in the same or a related field, the holding of an initial teaching qualification, and demonstrated potential for study at the graduate level. Some programmes may require experience in teaching or administration at an appropriate level.

Usual award for successful completion is a Master's degree or equivalent. If research has played an important rôle, together with the presentation of a thesis or dissertation, a Doctor's degree may be awarded, usually after a period of study lasting at least two or three years.

71472 Programmes in educational science without teacher training

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, designed to prepare specialists in educational science without emphasis on pedagogy as such. Emphasis is placed on the social and educational factors involved in the educational process from the individual, family and community points of view.

Through seminars, directed reading, visits, supervised internship and independent research, a student seeks to acquire a comprehensive understanding of some speciality in educational science. His speciality may be educational planning or some aspect of planning; educational policy with respect to an aspect of education; the impact of education on other social forces; the impact of current social factors on education; the learning process; a speciality in the history of education; a speciality in educational theory; etc. A programme in any speciality of this kind usually involves study of related subjects in the humanities, social and behavioural sciences, law, fine and applied arts, mathematics, statistics, etc.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree, usually in educational science and often the holding of a teaching qualification.

Usual award for successful completion is a Master's degree or equivalent. If research has played an important rôle, together with the presentation of a thesis or dissertation, a Doctor's degree may be awarded, usually after a period of study lasting at least two or three years.

71499 Other programmes in educational science and teacher training

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, designed to prepare specialists in areas of the educational sciences or teacher training not previously defined.

Through seminars, directed reading and independent research, the student seeks to acquire a comprehensive grasp of his particular subject and possibly of one or more related aspects of other subjects. Programmes usually last from one to three years' full-time study, and may consist of a certain number of prescribed courses, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation involving original research into a particular problem within the major subject. Examples of such major

subjects are : educational counselling; educational science methods in higher education; anthropology of education applied to specific case-studies; experimental studies in planned community development and education; specific studies in educational technology and computerized instruction.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree, usually in the same or a related field, the holding of an initial teaching qualification, and demonstrated potential for study at the graduate level. Some programmes may require experience in teaching or administration at an appropriate level.

Usual award for successful completion is a Master's degree or equivalent. If research has played an important rôle together with the presentation of a thesis or dissertation, a Doctor's degree may be awarded, usually after a period of study lasting for at least two or three years.

718 Fine and applied arts programmes

This field includes a variety of programmes in education at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, consisting of study, seminars, research and performance in aspects of the fine and applied arts. At this level, emphasis is given to the theoretical, philosophical and historical bases of the subjects included in a programme, and original research or composition is often an important element. In many programmes, original research work as substantiated by the presentation and defence of a scholarly thesis is a requirement. The programmes followed by individual students at this level are usually confined to one specialized area within one of the fine or applied arts.

Important kinds of programmes included are highly specialized studies within such groups as the history and philosophy of art, drawing and painting (including etching and print-making), sculpturing, music, drama, interior design, etc. A programme in any of the above specialities usually entails some study of related aspects of the same subject as well as special aspects of other related fine and applied arts, as a means of supplementing and assisting in the mastery of the major subject. In some cases, background studies are included also in special aspects of related subjects in the humanities, social and behavioural sciences, religion, natural sciences, etc. (Note that programmes in architecture and town planning are not included here, but are in 758.)

These programmes are mostly full-time, although advanced students may be active in their professions and therefore may undertake a programme on a part-time basis. The relatively few part-time programmes are refresher courses and special courses. Periods of practice or performance form an

indispensable part of some programmes. Programmes are usually given in universities, but some are provided by special colleges of fine arts.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree or the equivalent, generally in the same or a related field. In exceptional cases, reputable artists without a university degree are admitted to these courses.

Usual award for successful completion is a higher degree (M.A., M.Mus., Ph.D.) or the equivalent.

71802 Programmes in the history and philosophy of art

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, designed to prepare specialists in the history and/or philosophy of art.

Through study, seminars, studio work, and independent research, students acquire a comprehensive knowledge of some speciality within the broad area of the history and philosophy of art, such as Greek or Hindu sculpture, Chinese painting, art as an expression of nationalism, etc.

Programmes usually last between one and three years full-time in a university or college of art, and may consist of a number of prescribed courses, the achievement of a professional standard in the particular art form, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is possession of a first university degree or equivalent in the fine arts, and demonstrated potential for graduate study.

Upon completion of written and/or oral examinations, successful students are awarded a Master's degree (i.e. M.A., M.F.A.) or a higher diploma, or a doctorate (i.e. Ph.D. or D.F.A.) or the equivalent.

71804 Programmes in drawing and painting

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, designed to prepare specialists in drawing or painting.

Through study, seminars, studio work, and independent research, students acquire a comprehensive knowledge of some speciality within the broad area of drawing and painting, such as the theory of colour, basic forms, analysis of the visual arts, life drawing, lettering, etc.

Programmes usually last between one and three years full-time in a university or college of art and may consist of a certain number of prescribed courses, the achievement of a professional standard in the particular art form, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is possession of a first university degree or equivalent in fine arts, demonstrated potential for graduate study and presentation of a representative portfolio of the individual's accomplishments in printing or drawing.

Upon completion of written and/or oral examinations, successful students are awarded a Master's degree (i.e. M.A., M.F.A.) or higher diploma, or a doctorate (i.e. Ph.D., D.F.A.) or the equivalent.

71808 Programmes in sculpturing

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, designed to prepare specialists in sculpturing.

Through study, seminars, studio work, and independent research, students acquire a comprehensive knowledge of some speciality within the broad area of sculpture, such as visual and spatial relationships, definition of forms and structures, design, Greek or Hindu sculpture, etc.

Programmes usually last between one and three years full-time in a university or college of art and may consist of a number of prescribed courses, the achievement of a professional standard in the particular art form, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is possession of a first university degree or equivalent in the fine arts, demonstrated potential for graduate study and presentation of representative samples of the individual's work.

Upon completion of written and/or oral examinations, successful students are awarded a Master's degree (i.e. M.A., M.F.A.) or higher diploma, or a doctorate (i.e. Ph.D., D.F.A.) or the equivalent.

71822 Programmes in music

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, designed to prepare specialists in music, e.g. the history of music, music theory, musical composition, orchestration, etc.

Through study, seminars, studio work, and independent research, students acquire a comprehensive knowledge of some speciality within the broad areas of music such as baroque music, orchestration, composition, arranging, piano, etc.

Programmes usually last between one and three years full-time in a university or music school and may consist of a number of prescribed courses, the achievement of a professional standard in the specialization, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is possession of a first university degree or equivalent in music, demonstrated potential for graduate study, and perhaps the performance of a brief recital or presentation of a representative selection of past work.

Upon completion of oral and/or written examinations, successful students are awarded a Master's degree (i.e. M.A., M.Mus.) or higher diploma, or a doctorate (i.e. Ph.D., Mus.Doc.) or the equivalent.

71832 Programmes in the drama

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, designed to prepare specialists in the drama.

Through study, seminars, studio work and independent research, students acquire a comprehensive knowledge of some speciality within the broad area of drama such as acting, stagecraft, make-up, oral interpretation, diction, production, directing, etc.

Programmes usually last between one and three years full-time in a university or drama school and may consist of a number of prescribed courses, the achievement of a professional standard in the specialization, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is possession of a first university degree or equivalent in the dramatic arts, demonstrated potential for graduate study, and perhaps some experience in drama.

Upon completion of oral and/or written examinations, successful students are awarded a Master's degree (i.e. M.A., M.F.A.) or higher diploma, or a doctorate (i.e. Ph.D., D.F.A.) or the equivalent.

71852 Programmes in interior design

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, designed to prepare specialists in interior decoration and design.

Through study, seminars, studio work, and independent research, students acquire a comprehensive knowledge of some speciality within a broad area of interior design such as interior decoration of public buildings, offices, homes, etc.

Programmes usually last between one and three years full-time in a university or college of art and design and may consist of a number of prescribed courses, such as period furniture, colour harmony, wall decoration, product development, etc., the achievement of a professional standard in the specialization, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is possession of a first university degree or equivalent in fine arts or design, demonstrated potential for graduate study, and often presentation of representative work.

Upon completion of oral and/or written examinations, successful students are awarded a master's degree (i.e. M.F.A.) or higher diploma, or a doctorate (i.e. Ph.D., D.F.A.) or the equivalent.

71899 Other fine and applied arts programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, designed to prepare specialists in fine and applied arts other than those previously defined.

Through study, seminars, studio work, and independent research, students acquire a comprehensive knowledge of some speciality within one of the fine or applied arts such as dancing, textile design, apparel design, furniture design, etc.

Programmes usually last between one and three years full-time in a university or college of art and design, and may consist of a number of prescribed courses in the particular speciality concerned, the achievement of a professional standard in the specialization, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is possession of a first university degree or equivalent in the fine arts or design, demonstrated potential for graduate study, and often presentation of representative work.

Upon completion of oral and/or written examinations, successful students are awarded a Master's degree (i.e. M.F.A.) or higher diploma, or a doctorate (i.e. Ph.D., D.F.A.) or the equivalent.

722 Humanities programmes

This field includes a variety of programmes in education at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, concerned with theories, analytical methods, and research in aspects of subjects in the humanities. At this level, emphasis is given to the theoretical principles of the subjects included in the programmes and original research work, as substantiated by the presentation and defence of a scholarly thesis, is usually an important element. The programmes followed by individual students at this level are usually confined to one specialized area within one of the humanities.

Important kinds of programmes include those dealing with highly specialized aspects of the current or vernacular language and its literature, other living languages and their literature, "dead" languages and their literature, linguistics, comparative literature, history, archaeology, philosophy, etc. Study of a highly specialized programme in any of these subjects usually entails some study of related aspects of the same subject as well as special aspects of other related subjects in the humanities, as a means for supplementing and assisting in the mastery of the major subject: In some cases, other background studies are included in special aspects of such fields as the fine and applied arts, social and behavioural sciences, religion and theology, law and jurisprudence, natural sciences, mathematics, computer science, and statistics. In the main these programmes are full-time, although advanced students may do part-time teaching, research work, or other work related to their studies. The relatively few part-time programmes are refresher courses and special courses.

Usual minimum educational prerequisite is completion of education at the third level : first stage, of the type leading to a first university degree or equivalent, generally in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., Ph.D.) or the equivalent, (*diplôme d'études supérieures*).

72211 Programmes in the current or vernacular language and its literature

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research, dealing with the advanced study of the mother tongue or another current language, its history, its present structure, and its literature. Emphasis is given to research work as substantiated by the presentation of a scholarly thesis or dissertation:

Principal subject-matter areas into which courses and research projects tend to fall include special periods, a particular writer or group of writers, the structure and grammar of the language, the history of the language, the analysis of specific texts, principles of literary criticism, etc. Subject areas within which background studies tend to fall include history, comparative literature, linguistics, foreign languages, natural sciences, the social and behavioural sciences, philosophy, and mathematics.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type leading to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., Ph.D.) or the equivalent.

72215 Programmes in other living languages and their literature

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research, dealing with a living language, its history, its present structure, and its literature. Emphasis is given to research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include special periods in the literature; a particular writer or group of writers; the structure and grammar of the language; the history of the language; analysis of specific texts; principles of literary criticism; etc. Subject areas within which background studies tend to fall include history, comparative literature, linguistics, other foreign languages, natural sciences, the social and behavioural sciences, philosophy, and mathematics.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type leading to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., Ph.D.) or the equivalent.

72221 Programmes in "dead" languages and their literature

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the advanced study of a classical language, its history, structure and literature. Emphasis is given to research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include specific periods in the literature; a particular writer or group of writers; the structure and grammar of the language; the history of the language; analysis of specific texts; the principles of literary criticism, etc. Subject areas within which background studies tend to fall include ancient history, comparative literature, linguistics, other foreign languages, natural sciences, the social and behavioural sciences, philosophy, and mathematics.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type leading to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., Ph.D.) or the equivalent.

72231 Programmes in linguistics

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research, dealing with advanced concepts of language formation. Emphasis is given to original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include, i.e., transformation grammar; psycho-linguistics and advanced psycho-linguistics; historical linguistics; generative linguistics; grammatical rules specifying well-formed strings; conditions for the analysability and assigning of structural descriptions; generative phonology; articulatory and acoustic correlates; laryngeal theory; non-phonemic features; research techniques in linguistics, etc. Subject areas within which background studies tend to fall include foreign languages, literature, history, philosophy, natural sciences, mathematics, and statistics.

Usual minimum educational prerequisite is completion of third level education: first stage, of the type leading to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., Ph.D.) or the equivalent.

72241 Programmes in comparative literature

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the advanced study of international literary and cultural relations. Emphasis is given to research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include the origin and evolution of international literary movements; folk literature and folklore; criticism; aesthetics; intermediaries; epics and sagas; tragedy; comedy; modern drama; the contemporary novel; problems of comparative literature; the comparative method in literary studies; the forces in contemporary literature; and research techniques in comparative literature.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type leading to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., Ph.D.) or the equivalent.

72251 Programmes in history

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the discovery of the

reality of the past and the interpretation of human behaviour throughout time. Emphasis is given to research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include, e.g. a special period in a particular area; a specific problem in the history of an area; the history of science and technology at a particular time and place; interpretations of movements in national or world history; aspects of the philosophy of history; analysis of documents; interpretative biographies of significant persons. Subject areas within which background studies tend to fall include political science, the social and behavioural sciences, natural sciences, economics, philosophy, foreign languages, and literature.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type leading to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., Ph.D.) or the equivalent.

72261 Programmes in archaeology

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the study of the material remains of mankind's past. Emphasis is given to research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include, i.e., the general history and development of archaeology; archaeological records; archaeological classification and terminology; the materials and techniques of archaeology; research techniques in archaeology; civilizations, e.g. the New World prior to urban civilization; early man, etc. Emphasis is frequently laid on practical work in museums and the interpretation of artifacts. Participation in excavation and exploration may be an essential feature of the programmes. Subject areas within which background studies tend to fall include ancient history, the natural sciences, world literature, foreign languages, philosophy, etc.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type leading to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., Ph.D.) or the equivalent.

72271 Programmes in philosophy

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of classroom sessions and group discussion dealing with such problems as the nature of reality, human consciousness, human values, aesthetics, etc. Emphasis is given to research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include, i.a., epistemology, logic, semantics, aesthetics, moral philosophy, the works of a particular philosopher or school of philosophy, the history of philosophy at a particular period, a comparative study of Western and Eastern philosophy, the philosophy of science or mathematics, etc. Subject areas within which background studies tend to fall include history, the fine and applied arts, religion and theology, law and jurisprudence, the social and behavioural sciences, and foreign languages.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type leading to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., Ph.D.) or the equivalent.

72299 Other humanities programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with specialized areas of the humanities not found in the above group of programmes (i.e. 72211 to 72271). Included, i.a., are programmes featuring a particular approach to a subject, for example, economic or social, unusual combinations of courses, or a combining of humanistic and scientific programmes. In these programmes

emphasis is typically placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.e., the history of science, palaeography, the interpretation of texts, carbon-dating techniques, archaeological excavation.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., M.A., Ph.D.) or the equivalent.

726 Religion and theology programmes

Programmes in education at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, concerned with the study of religion, the scholarly investigation of religious doctrines, the performance of religious rites and offices, and the propagation of religious beliefs. At this level, emphasis is given to the philosophical and conceptual bases of the subjects included in the programmes, and original investigation and research, as substantiated by the presentation and defence of a scholarly thesis, are usually an important element. The programmes followed by individual students tend to be restricted to one specialized area of religious and theological studies.

Important kinds of programmes include those dealing with specialized aspects of textual and other records containing sacred writings in relevant classical languages, religious history, the relevant theology, analysis and criticism of theological interpretations of sacred works, and the examination of expository methods in religious practice including prayer, preaching, singing and ritual. Study of a highly specialized programme in this field usually involves some study of related aspects of other fields such as the humanities, social sciences, fine and applied arts, social welfare, law and jurisprudence. In some programmes a period of field work may be involved.

Usual minimum educational prerequisite is completion of education at the third level : first stage, of the type leading to a first university degree or the equivalent, generally in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., D.D., Ph.D.) or the equivalent.

72600 Religion and theology programmes (see definition under 726)

730 Social and behavioural science programmes

This field includes a variety of programmes in education at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, concerned with the theories, analytical methods, and research in the social and behavioural sciences. At this level, emphasis is given to the theoretical principles of the subjects included in the programmes and original research work, as substantiated by the presentation and defence of a scholarly thesis, is usually an important element. The programmes followed by individual students at this level are usually confined to one specialized area within one of the social and behavioural sciences. In most cases, the research content of the programme is paramount.

Important kinds of programmes include those dealing with highly specialized aspects of economics, political science, demography, sociology, anthropology, measurement and evaluation in education, applied psychology in education, other programmes in psychology; geography, studies in regional cultures, etc. Study of a highly specialized programme in any of these subjects usually entails some study of related aspects of the same subject, as well as special aspects of other related social and behavioural sciences as a means for supplementing and for assisting in the mastery of the major subject. In some cases, background studies are included also in special aspects of such fields as humanities, natural sciences, law and jurisprudence, business administration and related programmes, mathematics, computer science, and statistics.

In the main, these programmes are full-time, although advanced students may do part-time teaching, research work, or laboratory supervision. The relatively few part-time programmes are refresher courses and special courses designed to introduce new methods or new technologies to those already established in their professions.

Usual minimum educational prerequisite is completion of education at the third level : first stage, of the type leading to a first university degree or equivalent, generally in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent (diplôme d'études supérieures).

73012 Economics programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with economic theories, economic institutions and economic policies. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include advanced economic theory, history of economic doctrines, economic history, international trade and payments, monetary theory and policy, the business cycle, transportation economics, public finance, labour economics; welfare economics, marketing, econometrics, problems of economic development, consumption economics. Subject areas within which background studies tend to fall include business administration, sociology, political science, psychology, mathematics, and statistics.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

73022 Political science programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with political theories, political institutions and governmental forms. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include political theory; unitary and federal government problems, including theory, constitutional questions, and institutions; comparative political systems; political parties; international inter-governmental agencies; government decision-making. Subject areas within which background studies tend to fall include public administration, economics, sociology, psychology, law, and history.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

73033 Programmes in demography

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the theory of human population growth and the measurement of human populations. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include the theory of population growth and change, techniques of population projection, methods of measuring population size and characteristics (census taking), fertility, mortality, and morbidity in human populations. Subject areas within which background studies tend to fall include sociology, economics, family planning, anthropology, mathematics, and statistics.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

73035 Programmes in sociology

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the theory and institutions of human societies, including the dynamics of social organizations, institutions and groups. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include theories of human societies, social institutions, problems of social change, the family and the social institutions, social pathology, including the sociology of crime and rehabilitation of groups, quantitative sociology. Subject areas within which background studies tend to fall include economics, public administration, psychology, anthropology, law, history, mathematics, and statistics.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

73042 Anthropology programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the theory and practices of primitive human societies. Emphasis is placed on the theoretical and historical aspects of the subjects studied, and original research work is stressed, its results being usually substantiated by the presentation and defence of a scholarly thesis or dissertation. At this level, individual programmes are usually highly specialized in terms of subject-matter content.

Principal subject-matter areas within which study and research projects tend to fall include comparative anthropology, physical anthropology, social organization in pre-literate societies, methods of social control in primitive societies, religion in primitive societies, the family and extended family (clan) in primitive societies, language in pre-literate cultures, etc.

Many specialized programmes include study in other related branches of anthropology as well as study in specialities of related subjects such as linguistics, sociology, psychology, archaeology, religion, law, economics, natural sciences, and the fine arts.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

73052 Programmes in psychology

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of psychology. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include the history of psychology, psychological theories, history of psychological theories, experimental psychology, applied psychology, including measurement and evaluation programmes in education; social psychology, abnormal psychology, clinical psychology, psychotherapy, psychological testing, and psychometrics. Subject areas within which background studies tend to fall include relevant specialities in philosophy, sociology, anthropology, biology, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

73062 Geography programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with theory and practice in various geographical disciplines. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include the conceptual framework for geographical analysis, quantitative methods in geography, physical geography, economic geography, political geography, cultural geography, urban geography, rural geography, and regional geography. Subject areas within which background studies tend to fall include relevant specialities in economics, sociology, psychology, geology, biology, meteorology, cartography, mathematics and statistics.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

73072 Studies of regional cultures

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research in which a combination of social and behavioural science and related disciplines is applied to analyses of the social, cultural, and ethnic problems of a particular geographic region. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include relevant specialities in sociology, anthropology, economics, political science, geography, psychology, geology, biology, meteorology, history, languages, literature, and linguistics. Subject areas within which background studies tend to fall include relevant specialities in philosophy, fine arts, archaeology, religion, law and jurisprudence, mathematics, computer science and statistics.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

73099 Other social and behavioural science programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of social and behavioural sciences not included in the above programme groups. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall will depend on the particular social and behavioural science disciplines included. Branches of social and behavioural sciences already included above are sometimes known by different titles: For example, in the above groupings, econometrics is a branch of economics, ethnography is a branch of anthropology, psychotechnology is a branch of psychology, and diplomacy is a branch of political science. The social and behavioural sciences to be included here cannot be specified in advance, and therefore users of ISCED should examine the other programme groups carefully (including those classed as humanities, law and jurisprudence, and business administration and related programmes) before allotting any programme to this residual group.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

734 Business administration and related programmes

This field includes a variety of programmes in education at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, concerned with the theory, analytical methods, and practices of business management, business methods, public administration, and institutional

administration. At this level, emphasis is given to the theoretical principles of the subjects included in the programmes, and original research work as substantiated by the presentation and defence of a scholarly thesis is usually an important element. The programmes followed by individual students at this level usually cover a relatively narrow specialized subject area within one of the business administration and related specializations enumerated below.

Important kinds of programmes include those dealing with highly specialized aspects of business administration, usually with a specialization such as one of the following : accountancy; marketing, sales management, or advertising; finance, investment, and investment market analysis; etc. Programmes in public administration and in institutional administration with appropriate specialities are included. Study of a highly specialized programme in any of these subjects usually entails some study of related aspects of the same subject, as well as special aspects of other related business, public or institutional administration subjects, as a means for supplementing and assisting in the mastery of the major subject. In some cases, background studies are included also in special aspects of such fields as the humanities, social and behavioural sciences, law and jurisprudence, natural sciences, engineering, mathematics, computer science, and statistics.

In the main, these programmes are full-time, although advanced students may do part-time teaching, research work, or field investigation. The relatively few part-time programmes are refresher courses and special courses designed to introduce new methods or new technologies to those already established in their professions.

Usual minimum educational prerequisite is completion of education at the third level : first stage, of the type leading to a first university degree or equivalent, generally in the same or a closely related field. For short programmes and refresher courses, these admission requirements may be relaxed for individuals with less educational background but who are well established in business management, public administration, or institutional administration.

Usual award for successful completion is a higher degree (M.Comm., M.A., M.B.A., Ph.D.) or the equivalent.

73403 Programmes in business administration with specialization in accountancy

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of business administration, with emphasis on accountancy. Background study in other areas of business administration is usually included.

An important part of all such programmes is original research work involving the preparation and defence of a dissertation or thesis.

Principal subject-matter areas within which study and research projects tend to fall are general accounting, cost accounting, analysis of financial statements, flow of funds analysis, auditing of financial records, application of electronic computers to accounting procedures, etc. In addition, many programmes include some study of other business administration subjects such as commercial law, corporation finance, purchasing policy, etc. Background subject areas from which special subjects are often selected are economic theory, money and banking, international trade, statistics, and mathematics.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.B.A., Ph.D.) or the equivalent.

73405 Programmes in business administration with specialization in marketing

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of business administration with emphasis on marketing. Background study in other areas of business administration is usually included. Original research work involving the presentation and defence of a thesis or dissertation is an important element of these programmes.

Principal subject-matter areas within which study and research projects tend to fall include marketing and sales policy, market research, sales promotion, advertising, wholesale and retail management, etc. In addition, many programmes include the study of other business administration subjects such as production policy and management, product packaging, accountancy, purchasing policy, and management theory. Background subject areas from which special subjects are often selected include economics, international trade, mathematics, and statistics.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.B.A., Ph.D.) or the equivalent.

73407 Programmes in business administration with specialization in finance and investment

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of business administration, with emphasis on finance and investment. Background study in other areas of business administration is usually included. An important part of all such programmes is original research work involving the preparation and defence of a dissertation or thesis.

Principal subject-matter areas within which study and research projects tend to fall include financial market analysis, financial institutions, appraisal of financial securities, investment portfolio management, special problems of institutional investors, estate management, public policy and the investment market, etc. In addition, many programmes include some study of other business administration subjects such as commercial law, corporation finance, accountancy, etc. Background subject areas from which special subjects are often selected include economic theory, money and banking, economic fluctuations, mathematics, and statistics.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.B.A., M.A., Ph.D.) or the equivalent.

73409 Programmes in business administration with other specialization

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of business administration with emphasis on a subject not included in the above programme groups (i.e. 73403 to 73407). Examples of subject

specialities included here are production policy, business location, business organization, and personnel administration. Background study in other areas of business administration is usually included in a programme that specializes in a particular subject area. Original research as demonstrated by the presentation and defence of a dissertation or thesis is an important element in these programmes.

Principal subject-matter areas within which study and research projects tend to fall depend to some extent on the student's particular speciality. All the programmes, however, tend to include study of basic business administration subjects in addition to the speciality, and examples of these are: principles of business management; forms of business organization; corporation finance; accountancy; business financial policy; commercial law; marketing and sales policy, including retailing; advertising; production planning and policy; and ancillary business services such as delivery, credit, customer service, purchasing policy, etc. Background study is often included, such studies being selected from areas such as economics, sociology, mathematics, statistics, law, and engineering.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.B.A., M.A., Ph.D.) or the equivalent.

73442 Programmes in public administration

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of business administration. Emphasis is given to independent research and to the theoretical and historical background of the subjects studied. Background study in other areas of administration and public policy is often included in these programmes. The important ingredient of independent research is usually demonstrated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which study and research projects tend to fall usually include government forms and administrative agencies, comparative government, inter-governmental relations, objectives of public policy, administration and management of the public services, legislative procedures, etc. Background studies tend to include a broad range of social sciences such as economics, sociology, psychology; the humanities such as history, languages, literature, philosophy; business administration; law; and natural sciences. The objective is to provide a broadly-based programme for an adequate understanding of public administration principles and practices.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.B.A., M.A., Ph.D.) or the equivalent.

73452 Programmes in institutional administration

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of institutional administration. Examples of the kinds of institutional administration included are school administration, hospital administration, and administration of welfare institutions. The theoretical and historical background of the subjects studied are emphasized and an important element in these programmes is independent research involving the preparation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which study and research projects tend to fall differ with the student's speciality, but all tend to include principles of administration and management, accounting and financial control, information systems, personnel management, establishment of work objectives, etc. Specific administrative principles and problems of educational administration, hospital administration or welfare administration form the specialized portion of a programme, depending on the student's speciality. A broad background in the social sciences, natural sciences, humanities, law, etc., is often considered an essential part of these programmes.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.A., M.B.A., Ph.D.) or the equivalent.

738 Law and jurisprudence programmes

This field includes a variety of programmes in education at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, concerned with the theory, philosophy, history, and practice of law in terms of a particular legal system or in a comparative sense. At this level, emphasis is given to the theoretical principles and historical bases of the subjects included in the programmes, and original research work as substantiated by the presentation and defence of a scholarly thesis, is usually an important element. The programmes followed by individual students at this level usually cover a relatively narrow specialized subject area within one of the kinds of specializations enumerated below.

Important kinds of programmes include those dealing with specialized areas within such subject-matter specialities as jurisprudence and the history of law, international law, labour law, maritime law, constitutional and administrative law, criminal law, commercial law, air and space law, law dealing with natural resources, and other branches of civil law. Most programmes also include study of relevant aspects of other law specialities. In some cases, background studies are included also in special aspects of such fields as the humanities, social and behavioural sciences, commercial and business administration, public administration, natural sciences, engineering, etc.

In the main, these programmes are full-time, although advanced students may do part-time work in teaching less advanced students or in practising their profession. Such part-time programmes as exist are of the refresher course type.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type leading to a first university degree or equivalent, generally in the same or a closely related field.

Usual award for successful completion is a higher degree (Ll.M., Ph.D.) or the equivalent.

73802 Programmes in jurisprudence and the history of law

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the philosophy, science, and history of law. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include the relevant legal philosophy, comparative legal philosophies, the histories of the various systems of law, comparative modern legal systems, the judicial process, the relationship of law and morality, the relationship of law and justice, and the history of law. Subject areas within which background studies tend to fall include philosophy, psychology, history, economics, sociology, political science, and public administration.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (Ll.M., Ph.D.) or the equivalent.

73804 Programmes in international law

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of international law. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include the historical development of international law and of international legal institutions, the relationship of international and national law, international claims procedure, and the legal bases of nation states. Subject areas within which background studies tend to fall include political science, economics, philosophy, and history.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (Ph.D.) or the equivalent.

73806 Programmes in labour law

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of the law applicable to the relations between employers and employees or their respective organizations. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include the history of labour law, comparative labour law, national labour legislation, local labour legislation, the law as applied to labour disputes and other dealings between employers and employees, and some aspects of other legal specialities related to the particular programmes being followed. In addition, background courses in such subject areas as the history of labour organizations, labour as a social and political entity, collective bargaining procedures, the administration of collective agreements, economics, sociology, and philosophy are often included.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (Ph.D.) or the equivalent.

73808 Programmes in maritime law

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of the regime of the high seas. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include the philosophy and history of maritime law; territorial jurisdictions in maritime areas; laws governing ships on the high seas; laws on the protection of the marine environment; international conventions governing conduct on the high seas; the constitution and jurisdiction of maritime courts; the law on salvage, ocean prizes, and the like; and some aspects of other legal specialities related to the particular programme being followed. In addition, background courses in such subject areas as marine insurance, ocean transport, history, economics, political science, business administration, and public administration, are often included.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (Ph.D.) or the equivalent.

73899 Other law and jurisprudence programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of legal specialities not included in the above programme groups. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include constitutional and administrative law, commercial law, fiscal law, the law dealing with natural resources, air and space law, . . other branches of civil law, and other branches of criminal law. A specialized programme within any of the subject areas mentioned usually includes study of related legal specialities, and some programmes also include background studies in special aspects of such related fields as the humanities, social and behavioural sciences, commercial and business administration, public administration, natural sciences, engineering, etc.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (LL.M., Ph.D.) or the equivalent.

742 Natural science programmes

This field includes a variety of programmes in education at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, concerned with theory, experimental techniques, and research methods in the natural sciences. At this level, emphasis is given to the theoretical principles of the subjects included in the programmes, and original research work, as substantiated by the presentation and defence of a scholarly thesis, is usually an important element. The programmes followed by individual students at this level are usually restricted to one specialized area within one of the physical sciences. In most cases, the research content of the programme is paramount.

The principal kinds of programmes included within such disciplines as: the biological sciences (including pharmacology), i.e. specialities in zoology, botany, microbiology; chemistry, i.e. inorganic chemistry, organic chemistry, physical chemistry; geological sciences, i.e. geology, palaeontology, mineralogy; physics, i.e. mechanics, light, heat, electricity, high energy physics, quantum physics; astronomy (including astrophysics and radio astronomy); meteorology; oceanography; and other natural sciences such as metallurgy. Many programmes in the natural sciences at this level also include background studies in related natural sciences, in mathematics, statistics, and social sciences.

In the main, these programmes are full-time, although advanced students often do part-time teaching or supervise less advanced students in laboratories or field work. Some examples of part-time programmes are refresher courses and special courses designed to introduce new methods and techniques to those already employed in their specialities.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type leading to a first university degree or equivalent, generally in the same or a closely related field.

Usual award for successful completion is a higher university degree (i.e. M.Sc., Ph.D.) or its equivalent (e.g. Diplôme d'études supérieures).

74202 Biological sciences programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of seminar sessions, classroom and laboratory instruction dealing with advanced topics in the field of biology, including pharmacology. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include biometrics, ethology, human physiology, biological effects of radiation, cytogenetics, population genetics, molecular genetics, developmental genetics, theoretical and experimental embryology, microbial ecology, mycology, advanced algology, ichthyology, advanced vertebrate and invertebrate physiology, experimental endocrinology, advanced plant physiology and morphology of angiosperms and gymnosperms, limnology, cytology, histology, evolution and genetics, botanical techniques, animal and plant parasitology, pharmacogenetics, pharmacology of endocrine organs, pharmacology of psycho-active drugs, pharmacology of biologically active monamines, development of therapeutic agents, autonomic nervous system pharmacology, and advanced pharmacological methodology. Subject areas within which background studies tend to fall include biology, chemistry, physics, mathematics, and statistical analysis.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (e.g. M.Sc., Ph.D.) or the equivalent.

74212 Chemistry programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of seminar sessions, classroom and laboratory instruction dealing with advanced topics in the field of chemistry. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include advanced courses related to chemistry such as advanced analytical chemistry, crystal chemistry, x-ray crystallography, symmetry, metal chelatics, electroanalytical chemistry, chemistry of particles and related compounds, statistical thermodynamics, homogenous chemical kinetics, absorption and catalysis, chemical isotopes, chemistry of natural products, stereochemistry of carbon compounds, organic synthetic chemistry, chemical spectroscopy, molecular vibrations, molecular spectroscopy-diatomics, and quantum chemistry. Subject areas within which background studies tend to fall include appropriate specialities in physics, biology, geology, mathematics, statistical analysis, social sciences, and business management.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (e.g. M.Sc., Ph.D.) or the equivalent.

74222 Geological sciences programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of seminars, study, and laboratory work dealing with advanced topics in the field of geological sciences. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include advanced geological subjects such as stratigraphy, palaeontology, palaeobotany, palaeozoology, history and foundations of geology, geo-morphology, types and principles of ore deposits, ore microscopy, sediments of the world, coal petrology, palynology, advanced mineralogy, crystallography, chemical oceanography, glacial geology, dynamic structural geology, geotectonics, advanced structure and petrofabrics, habitat of oil, and photogeology. Subject areas within which background studies tend to fall include appropriate specialities in physics, biology, chemistry, mathematics, statistical analysis and social sciences.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (e.g. M.Sc., Ph.D.) or the equivalent.

74232 Physics programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of seminars, study, and laboratory work dealing with advanced subjects in the field of physics. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation. Note that programmes in physical metallurgy are included.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., advanced subjects related to the field of physics such as the quantum theory of solids, statistical mechanics, advanced thermodynamics, theoretical acoustics, applied group theory, advanced nuclear physics, advanced electricity and magnetism, quantum mechanics, atomic physics, advanced electronics, fourier optics, physical metallurgy, the structure of metals, X-ray diffraction in metals, relativity and cosmology, fluid mechanics, super-conductivity, advanced geophysics, and physics of the earth. Subject areas within which background studies tend to fall include appropriate specialities in chemistry, biology, geology, mathematics, statistical analysis, and social sciences.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (e.g. M.Sc., Ph.D.) or the equivalent.

74242 Astronomy programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of seminars, study and laboratory work dealing with advanced topics in the field of astronomy. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include advanced subjects related to the field of astronomy such as astrophysical plasma kinetic theory, Riemannian geometry, general relativity theory, cosmological models, radiometers and antennas, solar physics, solar radiation, solar terrestrial effects, lunar astronomical studies, double stars, theory of stellar atmosphere, information theory of noise signals, theory of convolutions, spherical astronomy, non-equilibrium radiative transfer theory, galactic structure and advanced astrophysics. Subject areas within which background studies tend to fall include fundamentals of celestial mechanics, solar physics and appropriate specialities in physics and mathematics.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (e.g. M.Sc., Ph.D.) or the equivalent.

74252 Meteorology programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of seminars, study and laboratory work dealing with advanced topics in the field of meteorology. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include advanced meteorological subjects such as advanced climatology, atmospheric turbulence, bioclimatology, dynamic oceanography, physics of the upper strata, cloud physics, atmospheric motions, atmospheric wave motion, x-ray diffraction, electron microscopy, spectroscopy, and cosmology. Subject areas within which background studies tend to fall include appropriate specialities in biology, geology, oceanography, computer science, physics, statistics and mathematics.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (e.g. M.Sc., Ph.D.) or the equivalent.

74262 Oceanography programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of seminars, study and laboratory work dealing with advanced topics in the field of oceanography. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include advanced subjects in the field of oceanography such as advanced marine geology and geophysics, advanced physical oceanography, advanced chemical oceanography, advanced biological oceanography, physiology of marine plants, fluid mechanics, ichthyology, marine population dynamics, and oceanographic techniques. Subject areas within which background studies tend to fall include appropriate specialities in botany, zoology, chemistry, physics, geology, mathematics, instrumental analysis, biochemistry, and statistics.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (e.g. M.Sc., Ph.D.) or the equivalent.

74299 Other natural science programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of seminars, study and laboratory work in a natural science not included in the above programme groups. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include specialized courses in the particular field of science concerned. In addition, most programmes include appropriate specialities in related areas of natural science, social science, mathematics and engineering.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree or the equivalent, such as the diplôme d'études supérieures.

746 Mathematics and computer science programmes

This field includes a variety of programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, concerned with the theory, analytical methods, and practices of specialities in mathematics, statistics, actuarial science, or computer science. At this level, emphasis is given to the theoretical principles of the subjects included in the programmes, and original research work as substantiated by the presentation and defence of a scholarly thesis is usually an important element. The programmes followed by individual students at this level usually cover a relatively narrow range of subject matter within a branch of mathematics, statistics, actuarial science, or computer science. Note that programmes in applied mathematics, except statistics and actuarial science, are not included here, but are found in the field of application, e.g. economics (econometrics), biology (biometrics), physics (mathematical physics), etc.

Principal subject areas within which study and research projects tend to fall are theoretical mathematics, one of the main branches of pure mathematics, a branch of statistical theory or practice, a branch of actuarial theory or practice, or an aspect of computer science. Study of a highly specialized programme in any of these subjects usually entails some study of specialized aspects of the same general subject field as well as specialities in other related fields of applied mathematics, natural sciences, social sciences, engineering, medicine, etc. Some programmes also include background studies in special aspects of such fields as the humanities, law and jurisprudence, business administration, etc.

In the main, these programmes are full-time, although advanced students may do part-time teaching, research work, or practice in their professions. Thus, the students may undertake the programmes on a part-time basis. The relatively few part-time programmes tend to be refresher courses and special courses designed to introduce new methods or new technologies to those already established in their professions.

Usual minimum educational prerequisite is completion of education at the third level : first stage, of the type leading to a first university degree or equivalent, usually in the same or a related field. For short programmes and refresher courses, these admission requirements may be relaxed for individuals who are well established in the subjects concerned.

Usual award for successful completion is a higher university degree (M.A., M.Sc., Ph.D.) or the equivalent.

74611 Programmes in statistics

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, consisting of study, seminar or group discussion and research in a speciality of statistical theory or practice. At this level, programmes tend to be highly specialized in terms of subject matter, and an important constituent is original research work resulting in presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which study and research projects tend to fall include, i.a., analysis of time series; multivariate analysis; stochastic processes; theory of games; design of experiments; statistical topics connected with operations research; decision theory; sequential analysis; theory and practice of sample surveys; non-parametric methods; and statistical model building.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent.

Usual award for successful completion is a higher university degree (M.A., M.Sc., Ph.D.) or the equivalent.

74621 Programmes in actuarial science

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study and group discussion or seminars dealing with specialities in actuarial science. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include advanced probability theory, selected topics in actuarial science, insurance law and regulations, annuities, investment policy for reserves, etc.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.S., Ph.D.) or the equivalent.

74639 Other programmes in mathematics

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, consisting of study, seminar or group discussion and research dealing with the theory and practice of mathematics. At this level a programme tends to be specialized in a particular aspect of mathematical theory or practice. An important constituent of these programmes is original research work resulting in the presentation and defence of a scholarly dissertation or thesis.

Principal subject areas within which study and research projects tend to fall include advanced algebra; applications of matrix algebra; advanced analysis; generalized functions; tensor analysis; convex programming; topology; differential geometry; combinatorics; foundations of mathematics; mathematical logic; group theory; rings and modules; category theory; algebraic number theory; class field theory; commutative algebra; complex analysis; theory of ordinary differential equations; theory of partial differential equations; Fourier series and transforms; topics in general relativity; mathematical foundations of quantum mechanics; coding theory; information theory; discrete time control systems; operations research; algebraic topology; topological and lie groups; statistical inference; probability and stochastic processes; markov processes; multivariate statistical analysis; algebraic K-theory; modular representation.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent.

Usual award for successful completion is a higher university degree (M.Sc., M.A., Ph.D.) or the equivalent.

74641 Programmes in computer science

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, consisting of study, seminar or group discussion and research in the theory and practice of computer science. At this level, programmes tend to be highly specialized in terms of subject content, and an important element is original research work resulting in the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which study and research projects tend to fall include, i.a., computing with symbolic expressions; topics in computer science; theory of switching; logic design and digital systems; models of thought processes; artificial intelligence research; the representation problem in artificial intelligence; numerical methods of optimization; advanced numerical analysis; compiler construction; graphic data processing; mathematical theory of computation; computer models for natural languages; analog computation; data processing in business problems; information and communication theory; and information organization and retrieval.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or the equivalent.

Usual award for successful completion is a higher university degree (M.Sc., M.A., Ph.D.) or the equivalent.

750 Medical science programmes

This field includes a variety of programmes in education at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, dealing with theoretical and practical aspects of medicine, dentistry and related disciplines. Emphasis is given to the theoretical and scientific principles of the subjects included, and original research work, as substantiated by the presentation and defence of a scholarly thesis, is usually an important element. High level speciality in medicine, surgery, dentistry, pharmacy, nursing and related disciplines is a feature of these programmes.

Important kinds of programmes are those for medical specialities such as internal medicine, surgery, anaesthesiology, radiology and radiation medicine, obstetrics, gynaecology, paediatrics, neurology, psychiatry, preventive medicine, forensic medicine, biomedical electronics and medical biophysics; dental and stomatological specialities such as operative (therapeutic) dentistry, oral surgery, periodontics, pedodontics, endodontics, prosthodontics and orthodontics; other health-related specialities such as

medical laboratory technology concerned with diagnostic and treatment procedures, pharmacy and nursing. Background courses are less important at this level but advanced specialized courses in such closely related fields as biological and other natural sciences, social and behavioural sciences, mathematics and statistics, law and jurisprudence, business and institutional administration, are often included in these programmes.

Except for refresher courses and special courses on new methods and techniques, these programmes are usually followed full-time in a university, college or teaching hospital. They are rarely, if ever, conducted at this level by correspondence, radio or television broadcasts.

Usual minimum educational prerequisite is completion of education at the third level : first stage, of the type leading to a first university degree or equivalent, generally in the same or a closely related field. In addition, these programmes often require experience in the general practice of medicine, dentistry, etc., for a stated period as a prerequisite for entry.

Usual award for successful completion is a certificate or licence indicating the speciality achieved, or sometimes an advanced degree.

75002 Programmes in medical specialities

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, dealing with the principles and practices of a medical speciality. Emphasis is given to original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include advanced studies in some of the following :- surgery, internal medicine, anaesthesiology, radiology and radiation medicine, obstetrics, gynaecology, paediatrics, neurology, psychiatry, ophthalmology, oto-rhino-laryngology, preventive and social medicine, forensic medicine, biomedical electronics, medical biophysics, etc.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree or a certificate of specialization.

75012 Programmes in dental and stomatological specialities

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, case histories, practice, and conferences dealing with the principles and practices of operative (therapeutic) dentistry, oral surgery, periodontics, pedodontics, endodontics, prosthodontics or orthodontics. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include crown and bridge prosthodontics, denture prosthodontics, endodontics, orthodontics, pedodontics, periodontics, operative dentistry, oral diagnosis, oral surgery and anaesthesia, preventive medicine, and radiology. Subject areas within which background studies tend to fall include dental anatomy and physiology, pharmacology, principles of medicine, jurisprudence, and practice management.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree or a certificate of specialization.

75099 Other medical science programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, case histories, ward work and hospital conferences dealing with the principles and practices of medical and public health disciplines not included in the above programme groups. Included are programmes in medical laboratory technology, pharmacy, nursing, etc. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include biomedical electronics, techniques of isotope control, advanced specialities in the application of advanced technology to diagnostic and treatment procedures in the laboratory, laboratory management, advanced specialities in pharmacy such as drug stability, systematic pathology, quality control in pharmaceutical manufacture, community pharmacy management, advanced nursing specialities such as those in public health nursing, comparative nursing and nursing of patients with particular needs such as geriatric nursing, surgical nursing, paediatric nursing, nursing administration and supervision. Subject areas within which background studies tend to fall include appropriate specialities in biology, chemistry, physics, social sciences and business administration. Coupled with study and research in subjects such as the above, there is usually a period of practice or hospital internship.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree or a certificate of specialization.

754 Engineering programmes

This field includes a variety of programmes in education at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, concerned with theory, experimental techniques, and research methods in engineering. At this level, emphasis is given to the theoretical principles of the subjects included in the programmes, and original work, as substantiated by the presentation and defence of a scholarly thesis or dissertation, is usually an important element. The programmes followed by individual students at this level are usually restricted to one specialized area within one of the branches of engineering. In most cases, the research content of the programme is paramount.

The principal branches of engineering within which the specialized programmes fall include, i.a., chemical engineering, i.e. the design and operation of industrial chemical processes, the preparation, manipulation and transformation of materials, and the design, construction, and economic operation of equipment for carrying out industrial chemical processes; civil engineering, i.e. the design and construction of public works and including structural engineering, railway engineering, highway engineering, hydraulic engineering, municipal engineering, and sanitary engineering; electrical and electronics engineering, i.e. the theory and practice of the generation, the transmission, and the utilization of electrical energy as well as the design, manufacture, and assembly of electronic circuitry for many purposes; industrial

engineering, i.e. the principles and techniques of organizing and conducting industrial processes involving all factors of production; metallurgical engineering (i.e. extractive metallurgy); mining engineering, i.e. the principles and practices of extracting and mechanically treating ores; mechanical engineering, i.e. the principles and practices of designing, constructing, and using apparatus that generates, transmits and utilizes power and including, i.a. marine, aeronautical, and automotive engineering and naval architecture; and other engineering specialities such as engineering science, engineering mathematics, and engineering physics. Many programmes in engineering at this level also include background studies in related engineering areas, as well as relevant specialities in natural sciences, mathematics, statistics, computer science, social science, and commercial or business administration.

In the main, these programmes are full-time, although advanced students often do part-time teaching or supervise less advanced students in laboratories or field work. Some examples of part-time programmes are refresher courses and special courses designed to introduce new methods and techniques to those already employed in their specialities.

Usual minimum educational prerequisite is completion of education at the third level : first stage, of the type leading to a first university degree or equivalent, generally in the same or a related field.

Usual award for successful completion is a higher university degree (M.Sc(Eng.), M.Eng., M.E., Ph.D., D.Eng., etc.) or the equivalent.

75412 Chemical engineering programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with advanced studies in specialized areas of chemical engineering. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a. chemical engineering systems design; applied thermodynamics and chemical kinetics, fluidization phenomena; chemical reactor design; catalysis; polymer science; absorption and ion exchange; chemical unit operation; biochemical engineering; water pollution control; air pollution control; pulp and paper technology; corrosion and corrosion control; electrochemical engineering; advanced process design. Subject areas within which background studies tend to fall include appropriate specialities from other engineering programmes and appropriate specialities from related fields such as the natural sciences, the social sciences, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc(Eng.), M.E., M.Eng., D.Eng., Ph.D., etc.) or the equivalent.

75416 Civil engineering programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with advanced studies in specialized areas of civil engineering. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., soil engineering; theoretical soil mechanics; hydraulic transients; sediment transport; hydraulics of open channels; advanced hydrology; analysis of engineering structures; strength of materials; structural dynamics; plate and shell structures; stability and vibration of structures; water quality analysis; sanitary engineering; municipal engineering, railway engineering; and highway engineering. Subject areas within which background studies tend to fall include appropriate specialities from other engineering programmes and appropriate specialities from other related fields such as the natural sciences, the social sciences, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc(Eng.), M.Eng., M.E., D.Eng., Ph.D., etc.) or the equivalent.

75422 Electrical and electronics engineering programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion, and research dealing with advanced studies in specialized areas of electrical and electronics engineering. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., linear and non-linear electrical and electronics systems; electromagnetic theory; electric power systems; computer methods in power system analysis; microwave theory and techniques; biomedical engineering; theory and design of electronic computer circuitry; power system protection and control; matrix analysis of electrical machines; and solid-state electronics. Subject areas within which background studies tend to fall include appropriate specialities from other engineering programmes, and appropriate specialities from other related fields such as the natural sciences, the social sciences, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc(Eng.), M.Eng., M.E., D.Eng., Ph.D., etc.) or the equivalent.

75426 Industrial engineering programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with advanced studies in specialized areas of industrial engineering. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Subject-matter areas within which courses and research projects tend to fall include, i.a., plant layout, production standards and methods, cost control, quality control, safety engineering, work simplification and measurement, forms and records management, design of budget systems, and organizational studies. Subject areas within which background studies tend to fall include operational research, inventory control, personnel management, network flows and integer programming, other appropriate engineering specialities, and appropriate specialities from other related fields such as the natural sciences, social sciences, commercial and business administration, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc(Eng.), M.E., M.Eng., D.Eng., Ph.D., etc.) or the equivalent.

75432 Metallurgical engineering programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with advanced studies in specialized areas of metallurgical engineering, (known also as extractive metallurgy). Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation. Note that programmes in physical metallurgy are included in 74232, Physics programmes.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., mineral processing; metallurgical thermodynamics; metallurgical kinetics; hydrometallurgy; structure of metals; phase transformations in solids; diffusion and sintering theory. Subject areas within which background studies tend to fall include appropriate specialities from other engineering programmes and appropriate specialities from related fields such as the natural sciences, the social sciences, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc(Eng.), M.Eng., M.E., D.Eng., Ph.D., etc.) or the equivalent.

75436 Mining engineering programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with specialized areas of mining engineering. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., mining methods; ventilation and environmental mine engineering; valuation of actual or potential mining properties; explosives technology in mining operations; rock mechanics; automatic control of mineral processes; treatment of mineral industry effluents; and open-pit mine design. Subject areas within which background courses tend to fall include appropriate specialities from other engineering programmes, and appropriate specialities from related fields such as natural sciences, social sciences, commercial and business administration, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc(Eng.), M.Eng., M.E., D.Eng., Ph.D., etc.) or the equivalent.

75442 Mechanical engineering programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with specialized areas of mechanical engineering. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation. Included, i.a., are marine, aeronautical, and automotive engineering and naval architecture.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., machine design; dynamics of machinery; stress analysis; mechanical vibrations; advanced heat transfer; friction and wear; gas and steam engine analysis; internal combustion engine analysis; space dynamics, high speed gas dynamics, aerodynamics; astrodynamics; refrigeration and cryogenics; watercraft design and construction, aircraft design and

construction; and motor vehicle design and construction. Subject areas within which background studies tend to fall include appropriate specialities from other engineering programmes, appropriate specialities from related fields such as natural sciences, social sciences, commercial and business administration, mathematics, statistics and computer science.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc(Eng.), M.E., M.Eng., D.Eng., Ph.D., etc.) or the equivalent.

75453 Agricultural engineering programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with specialized areas of agricultural engineering. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., agricultural equipment application and methods; design of farm machinery and structures; processing equipment and methods for agricultural products; drainage of agricultural land; design and operation of irrigation systems; quality of water supplies; waste treatment in agricultural industries; pollution problems in agriculture; and application of power sources in agriculture. Subject areas within which background studies tend to fall include appropriate specialities from other engineering programmes and appropriate specialities from related fields such as agriculture, natural sciences, social sciences, commercial and business administration, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc(Eng.), M.Agric.Eng., D.Eng., Ph.D., etc.) or the equivalent.

75463 Forestry engineering programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with specialized areas of forestry engineering. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., forestry engineering methods; forest hydrology; water quality and forest land use; forest environment; measurement techniques; forest mensuration; forest land management; production planning and control in logging; logging methods; logging engineering; and transport of logs and related forest products. Subject areas within which background studies tend to fall include appropriate specialities from other engineering programmes, and appropriate specialities from related fields such as natural sciences, social sciences, commercial and business administration, forestry, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc(Eng.), M.For.Eng., D.Eng., Ph.D., etc.) or the equivalent.

75499 Other engineering programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with specialized areas of engineering not included in the above groups of programmes. Included, i.a., are programmes in engineering science, engineering mathematics, and engineering physics. In these programmes emphasis is typically placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., analytical techniques in engineering; principles of engineering analysis; non-linear mechanics; properties of materials; elastic behaviour of materials; feedback control systems; nuclear reactor theory; quantum theory; electromagnetic theory; theory of measurements; plasma physics; crystal structure and X-rays; physical electronics; statistical mechanics; spectroscopy; plasma dynamics; and applications of elementary particle physics. Subject areas within which background studies and courses tend to fall include engineering specialities outside of the type that the student is following, and appropriate specialities in such related fields as natural sciences, social sciences, commercial and business administration, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., M.A.Sc., Ph.D.) or the equivalent.

758 Architectural and town planning programmes

This field includes a variety of programmes in education at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, concerned with the theory, experimental techniques, and research methods in architecture and town or community planning. At this level emphasis is given to the theoretical principles of the subjects included, and original work, as substantiated by the presentation and defence of a scholarly thesis or dissertation, is usually important. The programmes followed by individual students at this level are usually based upon one specialized area within one of the subjects included. In most cases, the research content of the programme is paramount.

Important kinds of programmes include those dealing with specialized areas within branches of structural architecture (e.g. the history of architecture, historic styles in architecture, environmental control in building structures, integrated building systems, etc.), landscape architecture (landscape design and the siting of structures, landscape environmental control, etc.), or town and community planning (principles of urban land use, social and institutional determinants for physical urban planning, metropolitan area development, urban renewal or redevelopment, etc.). Many programmes in architectural and town planning specialities at this level include background study related architectural or town planning subjects and related specialities in engineering, mathematics, natural sciences and social sciences, designed to supplement the study of the principal subject involved. Additional background study may also include relevant specialities in such fields as commercial and business administration, law and jurisprudence, or the humanities.

In the main, these programmes are full-time, although advanced students often do part-time teaching or supervise less advanced students in work on projects or in field work. Examples of part-time programmes are refresher courses and special courses designed to introduce new methods and techniques to those already employed in their specialities.

Usual minimum educational prerequisite is completion of education at the third level : first stage, of the type that leads to a first university degree or equivalent, generally in the same or a related field.

Usual award for successful completion is a higher university degree (e.g. M.Arch., M.Sc., Ph.D.) or the equivalent.

75802 Programmes in structural architecture

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with advanced specialities in the principles and practices of structural architecture. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., the history of architecture; historic styles in architecture; principles of architectural design; structural design and models; structural theory; building methods, materials, and assemblies; environmental control in buildings and structures; acoustical control in buildings; integrated building systems; mechanical equipment of buildings; social and community aspects of architectural operations. Subject areas within which background studies tend to fall include relevant specialities from landscape architecture and town or community planning, relevant specialities from engineering programmes (particularly civil engineering), relevant specialities from the natural sciences, social sciences, humanities, commercial and business administration, law and jurisprudence, mathematics, fine and applied arts.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

75812 Programmes in landscape architecture

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with advanced specialities in the principles and practices of landscape architecture. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., the history of landscape architecture, the history of structural architecture, historic styles in structural architecture, landscape design and the siting of structures, landscape environmental control (drainage, irrigation, etc.), and planting design. Many programmes also include study of related specialities in agricultural science such as soil chemistry, fertilizer technology, arboriculture, floriculture, etc. Additional background studies may be included from related aspects of such fields as engineering, natural sciences, mathematics, social sciences, the humanities, law and jurisprudence, and commercial and business administration.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

75822 Programmes in town planning

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with advanced specialities in the principles and practices of town or community planning. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.e., the history of town or community planning, the history of modern urban development, principles of urban land use, principles and problems of urban planning, social and institutional determinants for physical urban planning, regional planning development, metropolitan area development, urban transportation and traffic movements in relation to community planning, urban renewal or redevelopment, community planning as a function of local government, community planning and national or provincial governments. Subject areas within which background studies tend to fall include relevant specialities from architectural programmes, relevant specialities from engineering programmes (particularly civil engineering), and relevant specialities from such related fields as the fine and applied arts, social sciences, natural sciences, the humanities, law and jurisprudence, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

762 Agricultural, forestry and fishery programmes

This field includes a variety of programmes in education at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, dealing with theoretical and practical aspects of agricultural, forestry and fishery operations. Emphasis is placed on the theoretical, general and scientific principles of the subjects included, and original research work, as substantiated by the presentation and defence of a scholarly thesis, is usually an important element. High-level speciality in particular aspects of agricultural, forestry and fishery science is a feature of these programmes.

Important kinds of programmes include those dealing with highly specialized aspects of animal husbandry; crop husbandry; horticulture; soil and water sciences; agricultural economics and management of agricultural operations; veterinary science; food sciences and technology; forestry economics and forest management; wood science; forest cropping and protection of forest resources, including management of watersheds and recreational areas; fishery economics and fishery management; fishery science and technology, including fish culture. Background courses are less important at this level, but advanced specialized courses in such closely related fields as biological sciences, natural sciences, social sciences, mathematics and statistics are often included in these programmes. (Note that agricultural engineering programmes are in 75453 and forestry engineering programmes in 75463.)

In the main, these programmes are full-time, but they are frequently carried on in combination with part-time employment in the same institution, such as laboratory instruction and supervising or as a research assistant. Some students otherwise employed complete these programmes on a part-time or extra-mural basis. They are rarely, if ever, conducted by correspondence or broadcast lectures and demonstrations.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, generally in the same or a closely related field.

Usual award for successful completion of a programme is an advanced degree or equivalent diploma (usually M.Sc., or Ph.D. in this field).

76203 Animal husbandry programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study and research dealing with advanced specialities in the field of animal husbandry. Emphasis is given to original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include: animal genetics, animal breeding, animal nutrition, production of animal products, and control of animal environment. Subject areas within which background studies tend to fall include specialities in biology, biochemistry, biophysics, and statistical analysis.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., Ph.D.) or the equivalent.

76206 Horticulture programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study and research dealing with advanced specialities in the field of horticulture. Emphasis is given to original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include horticultural science, horticultural food crops, genetics and breeding of horticultural plants, preservation and storage of fruits and vegetables including low-temperature physiology, plant pathology, marketing of horticultural products, cultivation of orchards and vineyards, and horticultural plant taxonomy. Subject areas within which background studies tend to fall include botany, biochemistry, greenhouse methods, floral design, nursery management, mathematics, and statistical analysis.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., Ph.D.) or the equivalent.

76208 Crop husbandry programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study and research dealing with advanced specialities in the field of crop husbandry. Emphasis is given to original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include plant genetics, plant breeding, soil fertility, soil chemistry, soil genesis and classification, soil physics, soil biochemistry, soil microbiology, seed technology, pest- and weed-control, production of crops and control of crop environment. Subject areas within which background studies tend to fall include specialities in botany, biochemistry, biophysics, microbiology, seed biology, mathematics, and statistical analysis.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., Ph.D.) or the equivalent.

76212 Agricultural economics programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study and research dealing with advanced specialities in the field of agricultural economics. Emphasis is given to original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include farm management, farming systems, farm finance, farm policy planning and implementation, marketing of agricultural products, farm cost control, farm production economics, trade in agricultural products. Subject areas within which background studies tend to fall include business management, accountancy, economics, law and jurisprudence, public finance and taxation policy, agricultural co-operation and rural sociology, natural resource use economics and planning, area development planning, spatial equilibrium of agricultural production.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., Ph.D.) or the equivalent.

76222 Food sciences and technology programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study and research dealing with advanced specialities in the field of food sciences and technology.

Principal subject-matter areas within which courses and research projects tend to fall include food chemistry, food microbiology, food engineering, food preservation, including freezing, concentrating, sterilizing, drying, packing (airtight containers), food safety and toxicology and special problems in food technology. Subject areas within which background studies tend to fall include chemistry, physics, biology, nutrition and dietetics, mathematics, and statistical analysis.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc.; Ph.D.) or the equivalent.

76226 Soil and water science programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study and research dealing with advanced specialities in the field of soil and water sciences. Emphasis is given to original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include soil chemistry, soil physics, soil microbiology, soil conservation, soil fertility, soil classification, soil genesis, water conservation, hydrology, protection of water resources. Subject areas within which background studies tend to fall include chemistry, physics, biology, fundamentals of hydrology, mathematics, and statistical analysis.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., Ph.D.) or the equivalent.

76232 Programmes in veterinary medicine

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study and research dealing with advanced specialities in the field of veterinary medicine. Emphasis is given to original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include veterinary anatomy, physiology, histology, embryology, and genetics; veterinary pathology, pharmacology, parasitology and radiology; veterinary surgery, obstetrics, public health, and environmental medicine. Most programmes also include appropriate specialities in such related subject areas as biology, chemistry, physics, mathematics, and statistics.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree or a certificate of specialization.

76249 Other programmes in agriculture

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of study and research work dealing with theoretical and practical aspects of agricultural specialities not covered in the above programme groups. These programmes are highly specialized and emphasis is placed on original research work.

Principal content of these programmes is related to an aspect of the speciality concerned such as apiculture, sericulture, or other insect culture; fur farming; mushroom growing; growing of trees for their sap, as rubber production or maple sugar production. Aspects of general agricultural science related to the programmes are not ignored in spite of the highly specialized nature of these programmes. Included in some programmes also may be study of subjects like mathematics, statistics, botany, entomology, chemistry, and other disciplines related to the projects undertaken.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., or Ph.D.) or equivalent (diplôme d'études supérieures).

76262 Forestry programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of seminar and research work dealing with the principles and practices of forest management. Emphasis is given to protection and harvesting of forest crops and products, along with the effective management of land, water, forage and wildlife management in forests.

Principal subject-matter areas within which courses and research projects tend to fall include forest management, forest resource utilization, forest mensuration, wood science, forest conservation, forest protection, forest economics, reforestation, wildlife management, forest watershed management, and development and protection of forest recreational areas. Subject areas within which background studies tend to fall include botany,

chemistry, physics, biology, photogrammetry, hydrology, soil chemistry, law and jurisprudence, mathematics, and statistical analysis.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., Ph.D.) or the equivalent.

76272 Programmes in fishery science and technology

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of seminar and research work dealing with the principles and practices of fishery science and technology. Emphasis is given to original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include ichthyology, limnology, fish and marine life culture, fishery resource management, fishery economics, commercial fishery exploitation, sport fishery management, and fish pathology. Subject areas within which background studies tend to fall include specialities in biology, chemistry, biochemistry, aquatic ecology, fishery products technology, mathematics, and statistical analysis.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., Ph.D.) or the equivalent.

766 Home economics (domestic science) programmes

This field includes a variety of programmes in education at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, concerned with study and research work in home economics, including household arts. At this level, emphasis is given to the theoretical principles of the subjects included in the programmes, and original research work as substantiated by the presentation and defence of a scholarly thesis is usually an important element. The programmes followed by individual students are usually concerned with one specialized area within a branch of home economics.

Important kinds of programmes include those dealing with household and consumer food research and nutrition, household arts such as interior decoration, clothing design, dressmaking, and household management and family economics, child development, etc. Study and research projects tend to fall within areas of subject matter such as the above, but most programmes also include study of other home economics specialities as well as related specialities in the natural sciences, social and behavioural sciences, the humanities, fine arts, etc. Programmes at all levels in home economics tend to be quite broadly based in terms of subject matter.

Programmes at this level tend to be full-time, although students may do part-time work such as teaching, research work, or practising their professions. Such part-time programmes as exist are usually of the refresher or special course type.

Usual minimum educational prerequisite is completion of education at the third level : first stage, of the type leading to a first university degree or equivalent, generally in the same or a closely related field.

Usual award for successful completion of a programme is a higher university degree (M.A., M.Sc., Ph.D.) or the equivalent.

76612 Programmes in household and consumer food research; nutrition

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of seminar or group discussion and laboratory sessions, dealing with advanced subjects in food and nutrition. Periods of work in educational institutions, commercial enterprises, hospitals, etc., may form a regular part of the courses. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include, i.a., advanced foods and nutrition subjects such as human nutrition; chemistry and its applications to the preparation of foods; nutrition and disease; maternal and child nutrition; experimental food methods; and the cultural aspects of food. Subject areas within which background courses tend to fall include biochemistry, microbiology, physiology, sociology, psychology, anthropology, and statistics.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., M.A., Ph.D.) or the equivalent.

76632 Programmes in household arts

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of seminar or group discussion and laboratory sessions dealing with advanced subjects in household arts. Periods of work in educational institutions, commercial enterprises, hospitals, etc., may form a regular part of the courses. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include, i.a., interior space planning, housing design, apparel design and consumer-product design. Subject areas within which background courses tend to fall include architecture and housing, anthropology, human development, and family studies; art (textiles and clothing); chemistry; physics; psychology; sociology; consumer economics; and statistics.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., M.A., Ph.D.) or the equivalent.

76699 Other home economics (domestic science) programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of seminar or group discussion and laboratory sessions not included in the above programme groups (i.e. 76612 and 76632). These programmes are concerned with the applications of science to problems that arise in the running of homes or institutions in connection with the preparation of meals, the storage of food, the treatment of textiles, etc. Emphasis is typically placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Subject areas within which background studies and courses tend to fall include home economics specialities outside of the type that the student is pursuing, and appropriate specialities in the natural sciences, social and behavioural sciences, humanities, fine arts, etc. Work experience and field experience with families are desirable in conjunction with most programmes where basic research is carried out.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., M.A., Ph.D.) or the equivalent.

799 Other programmes in education at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent

This field includes a variety of programmes in education at this level not included in the above list of fields, i.e. 714 to 766. These programmes emphasize the theoretical principles of the subjects included, and they typically involve original research work as substantiated by the presentation and defence of a scholarly thesis. The programmes followed by individual students at this level are usually confined to one specialized area within a subject. Examples of the subject areas within which study and research projects tend to fall include journalism, radio and television broadcasting, public relations; other communications arts; criminology, civil security and military science; library science, social welfare, vocational counselling, environmental questions, etc. Most specialized programmes include study of other aspects of the subject area, as well as specialized aspects of related subjects in other fields.

Most programmes at this level are full-time, but students may engage in part-time work such as teaching, research work, or practice of their professions. Such part-time programmes as exist tend to be of the refresher or retraining type. Most programmes are conducted by universities, colleges, or similar institutions.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion of a programme is a higher university degree (M.A., M.Sc., M.J., Ph.D.) or the equivalent.

79902 Programmes in journalism

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, consisting of study, seminar or group discussion and research in the theory and practice of journalism, often with a period of internship with a periodical devoted to news or the interpretation of news. These programmes are usually specialized in subject content and include the preparation and defence of a thesis or dissertation based on original research.

Principal subject-matter areas within which study and research projects tend to fall include, i.a., current affairs; political science; communication theory; news reporting; rewriting and editing; layout design; the ethics of journalism. Other studies in general education at the third level may be selected according to the needs and background of the student - for example, in economics, sociology, law, public administration, natural science, or psychology. The subjects selected for study generally relate to the subject of the student's research project, i.e. of the thesis or dissertation.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.Sc., M.A., Ph.D.) or the equivalent.

79904 Programmes in radio or television broadcasting

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, consisting of study, seminar or group discussion and research in radio or television broadcasting, often with periods of internship with a broadcasting organization. These programmes are usually specialized in subject content, and include the preparation and defence of a thesis or dissertation based on original research.

Principal subject-matter areas within which study and research projects tend to fall include, i.a., current affairs; political science; communication theory; broadcasting policy; broadcasting techniques; organization of broadcasting agencies; broadcasting and public policy. Other studies in general education at the third level may be selected according to the needs and background of the student - for example, in economics, sociology, biology, or psychology. The subjects selected for study usually relate to the subject of the student's research project, i.e. of the thesis or dissertation.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.Sc., M.A., Ph.D.) or the equivalent.

79907 Public relations programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, consisting of study, seminar or group discussion and research in the theory and practice of public relations. These programmes are usually specialized in subject content and include the preparation and defence of a thesis or dissertation based on original research.

Principal subject-matter areas within which study and research projects tend to fall include creative writing and effective use of language, the use of mass media, business psychology, public opinion surveying; industrial promotion; marketing; advertising. Other studies in general education at the third level may be selected according to the student's requirements and background - for example, studies in economics, sociology, law, public administration, natural science, or psychology. The subjects selected for study generally relate to the subject of the student's research project, i.e. of the thesis or

dissertation.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.A., Ph.D.) or the equivalent.

79909 Other programmes in communications arts

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, consisting of study, seminar or group discussion and research in areas of the communications arts other than those defined in the preceding programme groups (i.e. 79902, 79904 and 79907). These programmes are usually specialized in subject content and include the preparation and defence of a thesis or dissertation based on original research.

Principal subject-matter areas within which study and research projects tend to fall depend on the particular communications art selected for study.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.A., M.Sc., Ph.D.) or the equivalent.

79913 Programmes in criminology

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of classroom sessions and seminar discussion dealing with the principles and practices of criminology. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include the history of crime and its treatment; organized crime and the professional criminal; constitutional and procedural problems in law enforcement; the prison community; the alcoholic and the narcotic addict; sexual offenders and character disorders; white-collar crime; nonconformist cultures; forensic toxicology; juvenile delinquency; its prevention and control; law and discretion in criminal sentencing; group psychotherapy in correctional institutions; the prevention and control of crime in metropolitan areas; practical work and research techniques in criminology. Subject areas within which background studies tend to fall include history, economics, the social and behavioural sciences, mathematics, natural sciences, statistics.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

79919 Other civil security and military programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of classroom sessions, on-the-job experience and seminar discussion dealing with the principles and practices of military science. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include the principles of logistics; military administration; personnel management; military justice; service orientation and leadership; elementary aerodynamics and aircraft structure; light aircraft operation; aerospace power; aerospace management; international aviation regulations; the history of maritime affairs; ship design; control systems; the principles of ship stability; ship weaponry; control and propulsion systems; world change and its military implications; political philosophy; defence management; the ethics of peace, war and defence. Subject areas within which background studies tend to fall include history, economics, the social and behavioural sciences, mathematics, physics, chemistry, statistics.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type leading to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

79922 Library science programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, dealing with the principles and applications of library science.

Through lectures, seminars, directed and independent study, and research, students acquire a comprehensive knowledge either of the general area of library science or of one or more fields within the broader area such as collection development, cataloguing, and classification, technical services, and the history of library services.

Programmes last between one and three years full-time in a university and consist of a number of prescribed core courses such as cataloguing and classification, technical services, reference materials and services, Sources, library organization and administration; demonstrated competence in one or more foreign languages; and the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.L.S., Ph.D.) or the equivalent.

79932 Social welfare programmes

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, consisting of lectures, seminars, independent and directed study and research and field work in the theory and practice of social welfare programmes and work.

Students acquire a comprehensive knowledge of the broad area of social welfare or of one or more aspects of the subject such as social welfare policy, social case work, social work research, psychiatric social work, medical social work or social agency administration.

Programmes usually last one to three years full-time in a school of social work at a university, and consist of a certain number of prescribed courses, demonstrated competence in one or more foreign languages, and the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.S.W., Ph.D., D.S.W.) or the equivalent.

79942 Programmes in vocational counselling

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, primarily consisting of lectures, seminars, independent and directed study and research and field work in the theory and practice of vocational counselling.

Students acquire a comprehensive knowledge of the broad area of vocational counselling. Emphasis is placed on practical work in and the observation of counselling procedures. An essential part of the programmes is the preparation of a thesis or dissertation, which may consist of an orderly and critical presentation of one part of the whole field of counselling or of an account of original research. Programmes usually last two to three years, full-time.

Principal subject areas within which study and research projects tend to fall include: vocational counselling theory; effective employment placement; job analysis and occupational analysis; learning and motivation; human traits (intelligence, aptitudes, interests and personality); interviewing methodology; the construction, application and scoring of vocational aptitude tests. Background study in such subjects as psychology, education science, humanities, social sciences and statistics is usually included.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.A., M.Sc., Ph.D.) or the equivalent.

79952 Programmes in environmental studies

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, dealing with specialized aspects of the theory and practice of environmental science, including wildlife protection. Most programmes at this level are concentrated within a particular aspect of environmental studies.

Through lectures, seminars, and independent and directed study and research, these programmes provide a thorough coverage of one or more branches of environmental science such as pollution detection and control, the preservation of the ecology, the control and planning of the use of natural resources, environmental rehabilitation, etc.

Programmes usually last between one and three years in a university and consist of a number of prescribed courses drawn, in varying combinations, from the humanities, social sciences, natural sciences, engineering and medical sciences, etc. Students must usually demonstrate competence in one or more foreign languages. An important requirement is the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related subject.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

79999 Other programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, n.e.c.

Programmes at the third level : second stage, of the type that leads to a postgraduate university degree or equivalent, designed to train specialists in subject areas other than those defined above (i.e. 79902 to 79952).

Programmes consist of lectures, seminars, independent and directed study and research and possibly some field work. They usually last between one and three years in a university and include various prescribed courses, acquisition of competence in one or more foreign languages, and the presentation and defence of a scholarly thesis or dissertation.

Usual minimum educational prerequisite is completion of third level education : first stage, of the type that leads to a first university degree or equivalent.

Usual award for successful completion is a higher university degree (M.A., M.Sc., Ph.D.) or the equivalent.

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9. EDUCATION NOT DEFINABLE BY LEVEL

This category shall include educational programmes that cannot be defined by level and that are therefore excluded from categories 0 - 7, i.e. no particular/definable prior education is required to enable students to undertake them. This will generally be apparent from the fact that they are, or can be, followed by students with varied educational experience or, in certain cases, none at all.

It is important that this category be kept as meaningful as possible by being restricted to those programmes that cannot be classified elsewhere. If this category were to be used as a ready receptacle for all the hard-to-classify cases, not only would it be too large and heterogeneous for useful analysis, but the value of the data in all the other levels would be affected adversely.

The programmes not definable by level vary considerably in both scope and depth as well as in the experience and knowledge they may require on the part of those engaged in them. Certain programmes, for example, may provide training for professional people, and others may provide it for illiterate adults, while still others - such as programmes including courses in the arts or foreign languages - may be equally suited to university graduates and to students with little or no formal education. They thus cover a very wide range both of education for adults and of out-of-school education for children and young people. However it must again be emphasized that the greater part of this kind of education falls within categories 0 to 7.

Although not definable by level, the programmes covered may be grouped into the same broad areas as those in categories 0 to 7 : general programmes; programmes in education and teacher training; the fine and applied arts; the humanities; religion and theology; the social and behavioural sciences; commercial and business programmes; law and jurisprudence; natural sciences; mathematics and computer science; health-related programmes; engineering; architecture and town planning; agriculture, forestry and fishery; home economics; transport and communications; and trade, craft and industrial training.

These programmes are usually part-time, often voluntary, and vary greatly in length. They may be provided by a wide range of agencies and institutions such as government departments (e.g. Education, Culture, Information, Agriculture, Health, Industry, Labour, Social Welfare and Community Development); educational institutions (e.g. university extra-mural extension departments, adult education institutes, cultural centres, correspondence schools); and non-governmental and voluntary organizations (e.g. trade unions, co-operative societies, women's associations and youth organizations).

This category of programmes may sometimes be difficult to distinguish from programmes of "unorganized" education or from activities that are not, for the purposes of ISCED, regarded as "education". Both these types of programme are excluded, as indicated in paragraphs 31-35 of the Introduction, from the definition of "education" in ISCED. It follows therefore that only programmes

of "organized and sustained" education for adults and young people out-of-school (i.e. those for which students are enrolled in an organized and sustained teaching-learning activity) should be included in this category of the ISCED classification system.

914 Programmes in education and teacher training, including training for extension and other fields of non-formal education

Programmes not definable by level and hence excluded from categories 0 to 7, generally designed for teachers, prospective teachers, or those employed in or interested in education, including extension and other fields of non-formal education for adults and young people out-of-school. The aim of some of the programmes is to increase knowledge and understanding of educational philosophy, administration and other aspects of education; of others, to provide training for teachers, education administrators, inspectors or others employed in education, including the teaching of pre-school children, handicapped children, adult education extension, or technical and vocational training. Programmes for teachers and education personnel may be in-service or pre-service. Programmes may be full-time (e.g. residential courses) or part-time, and they vary in length.

Those taking part in general courses for the study of education may do so for their own enlightenment and to increase their knowledge of the subject. Those taking part in training programmes for teachers and educational or extension personnel generally do so to improve their competence or to acquire new skills (e.g. the use of audio-visual aids, the preparation of educational television programmes).

Programmes vary widely in scope and depth. They may involve direct teaching and lectures; seminars and tutorials; programmes transmitted through the media of mass communication; correspondence courses; organized study and discussion groups; demonstration and role-playing; and combinations of any of these.

Programmes may be organized by government departments and services, (e.g. Education, Agriculture, Health); by non-governmental organizations (e.g. trade unions); and by educational institutions (e.g. universities; institutes of education, correspondence schools, and teacher-training institutions).

918 Fine and applied arts programmes

Programmes not definable by level and hence excluded from categories 0 to 7, for adults and young people out of school, designed to increase knowledge, understanding and appreciation of the fine and applied arts and/or to develop creative and/or interpretative skills. Programmes are generally part-time and vary in length.

Principal course content usually includes general arts studies; the history and philosophy of art; drawing and painting; sculpturing; music; the dance; drama; photography and cinema; interior design, etc. Programmes may involve classroom sessions and lectures; seminars and tutorials; study and discussion groups; demonstrations and performances; the educational use of exhibitions; broadcasts (radio and television); educational tours; and combinations of any of these.

Those taking part usually do so for enjoyment or enlightenment, or to develop artistic talents for use as a hobby or leisure-time activity. Professional artists may take part to extend the scope of their artistic activities or to learn or develop special skills.

Programmes may be organized by government departments and services (especially Education, Information and Broadcasting, Culture); by non-governmental organizations (e.g. trade unions, women's associations); and by educational institutions (e.g. university extension divisions; correspondence schools, art academies, etc.).

920 Language ("foreign" or second language) programmes

Programmes not definable by level and hence excluded from categories 0 to 7, designed for adults and young people out of school, to teach or improve knowledge of foreign and living languages.

Programmes are usually part-time and vary in length.

Participants generally enrol in these programmes for enjoyment or enlightenment or to gain useful knowledge of and skill in speaking, reading and/or writing a foreign language or languages with a view to travel abroad or reading foreign literature or enabling them to use the foreign language in their work.

Programmes vary widely in scope and depth and in the prior educational experience they require though students may be grouped, or programmes planned, according to ability in speaking, reading or writing the language being taught. /Programmes primarily or exclusively for the study of literature in a foreign language should be included in 922.7

They may involve direct teaching or lectures; seminars and tutorials; broadcasts (radio or television); correspondence courses; individual instruction; self-education through language laboratories or sound recordings; organized study groups; educational visits abroad; and combinations of any of these.

Programmes may be organized by government departments and services (especially Education, Information and Broadcasting, Culture); by non-governmental organizations and by educational institutions (e.g. correspondence schools, language schools, etc.).

922 Humanities programmes, n.e.c.

Programmes not definable by level and hence excluded from categories 0 to 7, designed for adults and young people out of school, designed to improve knowledge, understanding and appreciation of literature, history, philosophy and other subjects in the field of humanities.

Programmes are usually part-time and vary in length.

Participants who enrol in these programmes usually do so for enjoyment or enlightenment or to extend their competence as citizens or workers.

Programmes vary widely in scope and depth and in the experience and knowledge they require on the part of participants. They cover a broad range of subjects, including the learner's mother tongue or first language and its literature; other literature; "dead" languages and their literature; linguistics; comparative literature; history; archaeology; philosophy, and other humanities programmes.

Programmes may be organized by government departments and services (especially Education, Information and Broadcasting, Culture); by non-governmental organizations (e.g. trade unions, women's associations); and by educational institutions (e.g. university extra-mural extension departments, correspondence schools; etc.).

926 Religion and theology programmes

Programmes not definable by level and hence excluded from categories 0 to 7, designed for adults and young people out of school, to increase their knowledge and understanding of religion and theology. Programmes are usually part-time and vary in length.

Programmes vary widely in scope and depth. They may include courses in comparative religion or theology; or instruction in particular religious beliefs and practices. They may use direct teaching and lectures; seminars and tutorials; broadcasts (radio and television); correspondence courses; individual instruction; study and discussion groups; demonstration of religious practices; or combinations of any of these.

Programmes may be organized, occasionally, by government departments and services (especially Education, Information); more usually by non-governmental and especially by religious organizations (e.g. churches, mosques, temples, monasteries, and religious fraternities); or by educational institutions (e.g. university extra-mural extension departments, theological seminaries, correspondence schools, etc.).

930 Social and behavioural science programmes

Programmes not definable by level and hence excluded from categories 0 to 7, designed for adults and young people out of school. Some of the programmes aim to impart knowledge and understanding of the social and behavioural sciences as theory, others to provide teaching and guidance in their application, e.g. through political, civic or community education. These programmes are usually part-time and vary in length.

They also vary widely in scope and depth, as well as in the experience and knowledge they require on the part of participants. They cover a considerable range of subjects within the fields of economics, political science, sociology, anthropology, psychology, geography, studies of regional cultures and other social and behavioural science subjects. Content may be theoretical and general, or more specific (e.g. teaching about the political, administrative, and social structure and organization of a country, community or group); international and current affairs, including teaching about the United Nations; or it may be more practical (e.g. teaching about problems of village development, about the learners' rights and duties as citizens and workers or as members of specific groups or voluntary associations [e.g. trade unions, co-operatives], or as husbands, wives, parents, consumers, etc.

Programmes include courses of direct teaching or lectures; seminars and tutorials; broadcasts (radio and television); correspondence courses; organized study or discussion groups; role-playing; or combinations of any of these.

Programmes are organized by government departments and services (e.g. Culture, Information and Broadcasting, Education, Labour, Community Development); non-governmental organizations (e.g. trade unions, co-operatives, workers' education associations, women's, parents' and consumers' organizations); and educational institutions (e.g. university extra-mural extension departments, adult education institutions).

934 Commercial, clerical, business and public administration programmes

Programmes not definable by level and hence excluded from categories 0 to 7, designed for adults and young people out of school. Some of these programmes provide training in commerce and in secretarial and clerical work. Others are designed to increase knowledge and competence in business, public administration, and related subjects. Programmes are usually part-time and vary in length.

Participants in these programmes usually enrol to acquire useful knowledge or skills (e.g. typing and shorthand), or to extend their competence in clerical and secretarial work, in commerce or in administration.

Programmes vary widely in the experience or knowledge required on the part of the participants. They may be grouped into the broad areas of business administration, sometimes with specialization in accountancy, marketing, finance, and investment; public administration; and institutional administration. They include courses of direct teaching and of lectures; seminars and tutorials; broadcasts (radio and television); correspondence courses; individual instruction; organized study and discussion groups; role-playing; and simulation exercises; demonstration; educational visits; and combinations of any of these.

Programmes may be organized by government departments and services (especially Education, Trade and Industry); or by non-governmental organizations (e.g. trade unions, management associations) and by educational institutions (e.g. university extra-mural extension departments, adult education institutes, correspondence colleges, etc.).

938 Programmes in law

Programmes not definable by level and hence excluded from categories 0 to 7, designed for adults and young people out of school and designed to increase knowledge of law and jurisprudence.

Programmes are usually part-time and vary in length.

Participants may enrol out of personal interest or to acquire knowledge of law that will be useful to them in their work.

Programmes vary widely in the experience or knowledge required on the part of the participants. They cover theory, philosophy and history of legal systems, past and present; the law as a social institution; civil law; legal requirements for transactions such as property transfer, marriage and divorce, inheritance, etc.; commercial law; and criminal law.

They may involve direct teaching and lectures; seminars and tutorials; broadcasts (radio and television); correspondence courses; individual instruction; organized study and discussion groups; role-playing and simulation exercises; educational visits (e.g. to courts of law), and combinations of these.

Programmes may be organized by government departments and services (e.g. Education, Interior, Information); non-governmental organizations (e.g. trade unions); and by educational institutions (university extra-mural departments, adult education institutes, correspondence colleges, etc.).

942 Natural science programmes

Programmes not definable by level and hence excluded from categories 0 to 7, designed for adults and young people out of school and aimed at fostering interest in, and knowledge and understanding of, the sciences and their application. Programmes are usually part-time and vary in length.

Programmes in this category may be intended to popularize science and to introduce and explain scientific principles and methods to non-scientists or to provide information to scientists on scientific subjects outside their own specializations.

Programmes vary widely in scope and depth and in the experience and knowledge required of participants. They cover an extensive range of subject matter, including biology, chemistry, geology, physics, astronomy,

meteorology, oceanography, and other natural sciences. Especially in applied science, courses are often given on specific topics of interest to special groups (e.g. the use of radar in bird migration studies; aquarium management; the geological study of a region; the "chemistry of life", etc.).

Programmes consist primarily of courses of direct teaching or of lectures; seminars and tutorials; broadcasts (radio and television); correspondence courses; individual instruction (e.g. through teaching machines, do-it-yourself instructional science kits); organized study and discussion groups; demonstration; the systematic use of educational exhibitions; and combinations of any of these.

Programmes may be organized by government departments and services (e.g. Education, Information and Broadcasting); or, more usually, by non-governmental associations (e.g. professional associations, science clubs); and educational institutions (e.g. university extra-mural extension departments, correspondence schools).

946 Mathematics and computer science programmes

Programmes not definable by level and hence excluded from categories 0 to 7, designed for adults and young people out of school and aimed at increasing knowledge and understanding of mathematics and computer science and their applications. Programmes in this category may be designed to teach mathematics, to popularize and explain computer science, or to teach the elements of computer programming to those wishing to use computers in their work. Programmes are usually part-time and vary in their length.

They also vary widely in scope and depth, and in the experience and knowledge required of participants. They cover subjects such as mathematics, statistics, cybernetics, and computer science.

These programmes consist primarily of courses of direct teaching or of lectures; seminars and tutorials; broadcasts (radio and television); correspondence courses; individual instruction; organized study and discussion groups; demonstration; and combinations of any of these.

Programmes may be organized by government departments and services (e.g. Education, Information and Broadcasting); by non-governmental associations (e.g. professional associations); and by educational institutions (e.g. university extra-mural extension departments, correspondence schools).

950 Health-related programmes

Programmes not definable by level and hence excluded from categories 0 to 7, designed for adults and young people out of school. Some of the programmes may provide special training for people in the para-medical or medical professions in areas outside their formal training (e.g. a course in health education for doctors, or a course in family planning for midwives). Others may be designed for the general public, or for special groups such as expectant mothers, to impart basic knowledge and its practical application to health matters. Programmes are usually part-time and vary in their length.

Programmes also vary widely in scope and depth, and may cover any aspect of medicine, public health, nursing, midwifery, health education, hygiene and sanitation, the prevention and treatment of sickness and common diseases, home nursing; sex education; and family planning.

The emphasis is generally on practical training, but this may be based on theoretical study directly relevant to the learner's needs and capacities. Programmes consist primarily of lectures, seminars, discussion, demonstration, visual aids, exhibitions and health museums. Some programmes are conducted wholly or partly through the media of radio or television.

Programmes are organized by government departments and services (e.g. Health, Community Development, Social Welfare, *Animation* /French/; by non-governmental organizations (e.g. women's associations, youth organizations); or by educational institutions as extra-curricular activities.

They may be held in appropriate buildings (e.g. health clinics, family planning centres, mother and child health centres, community development training centres, schools) or even out of doors.

954 Engineering programmes

Programmes not definable by level and hence excluded from categories 0 to 7, designed for adults and young people out of school, for the purpose of improving their knowledge and understanding of engineering practices in general or those of a branch of engineering. Programmes are usually part-time and

their lengths vary.

Some of these programmes may be designed for those professionally engaged in a branch of engineering or engineering technology or working with engineers in a non-engineering capacity. Other programmes may be geared to the general public or the non-professional groups, to engage their interest and enlarge their knowledge of engineering.

Programmes vary widely in scope and depth. They may consist of direct teaching and lectures; seminars and tutorials; broadcasts (radio and television); correspondence courses; individual instruction (e.g. through teaching machines, do-it-yourself kits, etc.); demonstration; or any combination of such methods.

Programmes may be organized by government departments and services (e.g. Education, Public Works, Information and Broadcasting); by non-governmental organizations (e.g. engineering societies, building corporations, trade unions); or by educational institutions (e.g. university extra-mural and extension departments, correspondence schools, technological institutes, etc.).

958 Architectural and town planning programmes

Programmes not definable by level and hence excluded from categories 0 to 7, designed for adults and young people out of school, for the purpose of increasing their knowledge and understanding of architecture and town planning. Programmes are usually part-time and their lengths vary.

Certain of these programmes may be designed for those professionally engaged in these fields and who wish to extend their knowledge and competence in specific areas not covered by their previous training. Others of these programmes may be geared to the general public or to non-professional groups, to engage their interest and enlarge their knowledge of architecture, landscape, or town and community planning.

Programmes vary widely in scope and depth. They may consist of direct teaching and lectures; seminars and tutorials; broadcasts (radio and television); exhibitions; correspondence courses; organized study and discussion groups; demonstration; and combinations of any of these.

Programmes may be organized, occasionally, by government departments and services (especially Education, Information); more usually by non-governmental organizations (e.g. amenity or architectural societies) or by educational institutions (e.g. university extra-mural extension departments, correspondence schools, etc.).

962 Agricultural, forestry and fishery programmes

Programmes not definable by level and hence excluded from categories 0 to 7. Some of these programmes may be designed for agricultural, veterinary, forestry or fishery officers or for those professionally employed in agricultural extension and related fields, for the purpose of enlarging their knowledge and increasing their competence (e.g. by in-service training), perhaps in areas not covered by their previous training. Other programmes may be designed for those living and working in rural areas, especially farmers, fishermen, forest workers, etc., the object being to train these people in and to get them to adopt improved practices in, crop and livestock production; fishing; forestry; farm management; soil conservation; marketing. Training for farmers and fishermen or foresters and other rural workers may be provided through organized courses, either full-time or part-time, of varying lengths.

Extension programmes in which students are not enrolled (e.g. visits to individual farms by agricultural extension workers) are excluded as being not "organized and sustained" [see definition of "education" in paragraphs 31-35 of the Introduction to this volume.]

Included in this category are training courses specifically designed for illiterate adults but not involving the teaching of literacy, which feature agriculture and related subjects as the major emphasis.

Programmes cover a wide range of activities relevant to agriculture and rural development, and they impart knowledge, techniques, and skills in such subjects as crop production, horticulture, irrigation and drainage, pest control, food storage and preservation, farm budgeting and accounting, marketing, etc.

Programmes may employ lectures; demonstration and discussion; mass communication, especially radio and television programmes aimed at farm and related audiences; written and audio-visual media. Young farmers and "Four H" clubs are often formed for the training of young people out of school.

Programmes are organized by government (agricultural) departments, by non-governmental organizations (e.g. farmers' trade unions or co-operatives), or by educational institutions (e.g. university agricultural departments). Farmers' training may be given in special farm institutes or in residential and other training centres.

966 Home economics programmes

Programmes not definable by level and hence excluded from categories 0 to 7, designed for adults and young people out of school - mainly for women and girls - with the aim of imparting basic knowledge and its practical application in the areas of home economics (domestic science), including the care, maintenance and improvement of the home; child care; nutrition; the preparation, preservation, cooking and serving of food; beauty care; the care and mending of apparel. Programmes are usually part-time, and they vary greatly in length.

Included in this category are training courses specifically designed for illiterate adults but not involving the teaching of literacy, which feature home economics and related subjects as the major emphasis.

The emphasis is generally on practical training, but this may be based on theoretical study directly relevant to the learner's needs and capacities. Programmes often make use of oral instruction, demonstration and sometimes visual aids. Some programmes are conducted wholly or partly through the media of radio or television.

Programmes are organized by government departments and services (e.g. Health, Community Development, Social Welfare, Animation /French/, Agriculture); by non-governmental organizations (e.g. women's associations, youth organizations)- or by educational institutions as extra-curricular activities (e.g. domestic science colleges). They may be given in appropriate buildings (e.g. clinics, family planning centres, mother and child health centres, community development training centres, schools) or even out of doors.

970 Transport and communications programmes

Programmes not definable by level and hence excluded from categories 0 to 7, designed for adults and young people out of school for the purpose of increasing their knowledge and competence in the operation of means of transport and communications. Programmes may be full-time or part-time, and they vary in length.

Most of these programmes take the form of in-service training for the personnel of airlines, shipping lines, railways, road transport services, postal and other communications services. Programmes are often designed to teach new skills, introduce new techniques, or extend knowledge and competence in areas not covered by previous training.

These programmes consist primarily of direct teaching and lectures; demonstration; practice under the supervision of an instructor; the use of self-teaching devices and audio-visual aids.

Programmes are organized by government departments (e.g. the Ministries of Transport and Communications); by quasi-governmental and non-governmental agencies and private (transport) industries (e.g. airlines, railway companies, trade unions); and by vocational training institutions as extra-curricular activities.

974 Trade, craft and industrial programmes

Programmes not definable by level and hence excluded from categories 0 to 7, designed for young people and adults working in trades, crafts, and industries, for the purpose of imparting skills and knowledge, introducing techniques, and developing competence. Programmes are usually part-time, and they vary greatly in length.

These programmes are distinguished from those at the second and third levels in that they are not a part of the recognized system of technical/vocational training, do not require specific entry qualifications, are not generally subject to recognized or standard tests, and do not generally award certificates or diplomas. Training in this category is generally in-service, and designed to upgrade skills, introduce new techniques, or enlarge essential knowledge and improve competence.

Included in this category are training programmes for those who are not earning their living as workers or craftsmen, e.g. training in construction for community development and programmes of elementary vocational training for illiterates. Excluded from this category are programmes of work-oriented functional literacy (category 110), training for handicrafts and hobbies (category 978), as well as apprenticeships and courses at the second and third levels of education (e.g. categories 274, 374 and 574).

Training varies widely in scope and depth and may be given to workers or craftsmen, from the unskilled to the highly skilled; it may be elementary or advanced, but is generally practical and of immediate application to the trade, craft or industry from which the trainee earns his living. It covers a wide range including, potentially, all trades, crafts and industries.

Training generally involves practice of the skills or application of the techniques to be learned, under the supervision of a skilled instructor. It may be given either on the job or in short organized courses, at the work place or in technical and vocational institutions and centres of all kinds, as an extra-curricular activity.

Programmes are organized by industrial concerns, by government departments or services (e.g. Departments of Labour, Industry, Rural Industries); by non-governmental organizations (e.g. trade unions, craft associations, co-operatives); or by educational institutions, and especially by technical and vocational training institutions, as extra-curricular activities.

978 Programmes in handicrafts, hobbies, sports, and physical education

Programmes not definable by level and hence excluded from categories 0 to 7, designed for adults and young people out of school, with a view to fostering their interest in and providing training for leisure-time pursuits and giving physical education.

Excluded from this category, and included in category 974, are programmes not definable by level that are designed to prepare those who take part in them to earn their living as workers and craftsmen, or to play a part in community development and related programmes. Also excluded, as being outside the field of education, are programmes that provide facilities for the pursuit of handicrafts, hobbies, etc., but that do not provide systematic training or have any educational purpose.

Programmes vary widely in scope and depth and in the skills and experience they require from those intending to engage in them. They cover a broad range of courses and activities such as training or coaching in jewellery design, wood carving, beekeeping, gardening, motor driving, sailing, aqualung diving, equitation, fly fishing, gymnastics, tennis, football, etc. Courses are generally given by direct instruction and demonstration of skills, sometimes in programmes transmitted through the media of mass communication.

Programmes are organized by government departments and local authorities (e.g. Ministries of Youth and Sport, Popular Culture); by a wide range of non-governmental organizations, often specializing in individual hobbies, sports, etc.; and by educational institutions (e.g. athletic or gymnastic high schools).

999 Other education not definable by level

Programmes not definable by level and hence excluded from categories 0 to 7, designed for adults and young people out of school, with a view to fostering their interest in a wide range of subject matter useful both vocationally and otherwise, and not included in the above fields, i.e. 914 to 978.

The subject-matter categories covered include, *inter alia*, specialities in the study of mass communications (e.g. journalism, radio and television broadcasting, public relations, the cinema); criminology and police work; fire protection; other civil security and military subjects; library science and documentation work; social welfare; vocational counselling; environmental studies; etc.

Programmes vary widely in scope and depth and in the skills and experience they require from those intending to engage in them. The programmes are generally practical, although they may be elementary or quite advanced in terms of the subject (but indeterminate regarding the prior education required for their mastery).

Any instructional method may be used (e.g. classroom, discussion group or seminar, broadcast, correspondence, tutorial, teaching machine, audio-visual aids, etc.).

Programmes may be organized by government agencies, professional groups, private groups or clubs, associations, business organizations, trade unions, educational institutions, etc.

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Air crew programmes	57002				
Animal health, programmes in	56232				
Animal husbandry, programmes in	36204	56203	66203	76203	
Anthropology, programmes in	63042	73042			
Applied arts, other programmes in	31899	51899	61899	71899	
Applied arts, programmes in	318	518	618	718	918
Applied mathematics, other programmes in	54639				

Applied science, general programmes with emphasis on	60105				
Applied science, general programmes with special emphasis on	30108				
Archaeology, programmes in	62261	72261			
Architectural and town planning programmes	558	658	758	950	
Architecture, landscape, programmes in	55812	65812	75812		
Architecture, programmes in	558	658	758	958	
Architecture, structural, programmes in	55802	65802	75802		
Art, history of, programmes in	71802				
Art, philosophy of, programmes in	71802				
Art studies, general programmes of	51801	61801			
Arts, applied, other programmes in	31899	51899	61899	71899	
Arts, applied, programmes in	318	518	618	718	918
Arts, fine, other programmes in	31899	51899	61899	71899	
Arts, fine, programmes in	318	518	618	718	918
Arts, graphic, programmes in	37428	57442			
Arts, household, programmes in	76632				
Arts, household, programmes with emphasis on	56632	66632			
Astronomy, programmes in	64242	74242			

B

Behavioural sciences : See - Social and behavioural sciences

Biological science, programmes in	54202	64202	74202		
Bookbinding, programmes in	27428				
Building trades programmes n.e.c.	27416	37416			
Business administration and related programmes	634	734			
Business administration, general programmes in	63401				

Business administration, marketing and sales programmes	53462	
Business administration, programmes in	534	
Business administration with other specialization, programmes in	63409	73409
Business administration with specialization in accountancy, programmes in	63403	73403
Business administration with specialization in finance and investment, programmes in	73407	
Business administration with specialization in marketing, programmes in	73405	
Business-machine operation, programmes in	53412	
Business, other programmes in	33499	53499
Business, programmes in	334	934

C

Chemical engineering and materials technology, programmes in	55412	
Chemical engineering, programmes in	65412	75412
Chemistry, programmes in	54212	64212 74212
Child care, programmes with emphasis on	36622	56622
Cinematography, programmes in	51842	
Civil engineering, programmes in	55416	65416 75416
Civil security, programmes in	59919	69919 79919
Clerical programmes	934	
Clerical-typist programmes	33408	
Commercial and business administration programmes	534	
Commercial and business programmes	334	
Commercial and business programmes, other	33499	53499
Commercial programmes	234	934
Commercial programmes, general	23401	33401 53401

Commercial programmes, other	23499	33499	53499
Communications arts, other programmes in	59909	69909	79909
Communications equipment, installation and maintenance, programmes in	37022	57022	
Communications, other programmes in	37029	57029	
Communication programmes	370	570	970
Community planning, programmes in	55822		
Comparative literature, programmes in	52241	62241	72241
Computer science, programmes in	546	54641	646 64641 746
	74641	946	
Consumer food research, programmes in	76612		
Consumer food research, programmes with an emphasis on	66612		
Cooking, home economics programmes of pre-vocational training in	26608		
Counselling, vocational, programmes in	59942	69942	79942
Craft, general programmes in	27401		
Crafts, general programmes with an emphasis on	37401		
Crafts, other programmes in	27499	37499	57499
Crafts, programmes in	274	374	574 974
Criminology, programmes in	69913	79913	
Crop husbandry, programmes in	36208	56208	66208 76208
Cultures, regional, studies of	63072	73072	
Current or vernacular languages, programmes in	52211	62211	72211
Curriculum development, programmes in	71401	71408	

D

Data processing, electronic, programmes in	53422		
"Dead" languages, programmes in	62221	72221	
Demography, programmes in	73033		

Dental practitioners, programmes for	55042				
Dental specialities, programmes in	75012				
Dental technology, programmes in	55046				
Dentistry, programmes in	65012				
Design, interior, programmes in	61852	71852			
Design, programmes in	55406				
Documentation personnel, programmes for	59929				
Domestic electricity programmes	57402				
(Domestic science), home economics, general programmes in	66601				
(Domestic science), home economics programmes	266	366	566	666	766
Drafting, programmes in	55406				
Drama, programmes in the	51832	61832	71832		
Drawing, programmes in	31804	51804	61804	71804	
Dressmaking, home economics programmes of pre-vocational training in	26604				
Drink processing, programmes in	27436	37436			

E

Early childhood education, programmes with specialization in	71412				
Economics, agricultural, programmes in	56212	66212	76212		
Economics, programmes in	53012	63012	73012		
Educational sciences, general programmes in the	71401				
Education, first level	1				
Education, first level, other programmes of	199				
Education, general programmes containing little or no technical	201	20100			
Education not definable by level	9				
Education not definable by level, other	999				

Education, physical, programmes in	59962	69962	978
Education preceding the first level	0		
Education programmes with specialization in curriculum development in a non-vocational subject	71404		
Education programmes with specialization in curriculum development in vocational subjects	71408		
Education programmes with specialization in early childhood education	71412		
Education science (teacher training), other programmes in	61499	71499	
Education science (teacher training), programmes in	614	714	
Education science without teacher training, programmes in	71472		
Education, second level, first stage	2		
Education, second level, first stage, other programmes	299		
Education, second level, second stage	3		
Education, second level, second stage, other programmes	399	39999	
Education (teacher training): See - Teacher training, programmes in			
Education, technical, general programmes containing little or no	201	20100	
Education, third level : first stage, of the type that leads to an award not equivalent to a first university degree	5		
Education, third level : first stage, of the type that leads to an award not equivalent to a first university degree, other programmes	599	59999	
Education, third level : first stage, of the type that leads to a first university degree or equivalent	6		
Education, third level : first stage, of the type that leads to a first university degree or equivalent, general programmes in	601		

Education, third level : first stage, of the type that leads to a first university degree or equivalent, other programmes in	699	69999	
Education, third level : second stage, of the type that leads to a postgraduate university degree or equivalent	7		
Education, third level : second stage, of the type that leads to a postgraduate university degree or equivalent, other programmes in	799	79999	
Electrical and electronics engineering programmes	55422	65422	75422
Electrical and electronics trades, programmes in	37412		
Electrical trades, programmes in	27412	37412	
Electricity, industrial and domestic, programmes in	57402		
Electronic data processing, programmes in	53422		
Electronics equipment installation and servicing, programmes in	57404		
Electronics trades, programmes in	37412		
Elementary programmes, general	101		
Elementary programmes with some vocational emphasis	104	10400	
Elementary school teaching, general teacher training for	21401		
Engineering, agricultural, programmes in	55452	65453	75453
Engineering, chemical, programmes in	55412	65412	75412
Engineering, civil, programmes in	55416	65416	75416
Engineering, electrical, programmes in	55422	65422	75422
Engineering, electronic, programmes in	55422	65422	75422
Engineering, forestry, programmes in	55452	65463	75463
Engineering, industrial, programmes in	55426	65426	75426
Engineering, mechanical, programmes in	55442	65442	75442
Engineering, metallurgical, programmes in	55432	65432	75432
Engineering, mining, programmes in	55436	65436	75436

Engineering, other programmes in	55499	65499	75499
Engineering, programmes in	554	654	754 954
Environmental studies, programmes in	59952	69952	79952

F

Finance, programmes with specialization in	73407		
Fine arts, other programmes in the	31899	51899	61899 71899
Fine arts, programmes in the	318	518	618 718 918
Fire fighting, programmes in	59915		
Fire protection, programmes in	59915		
First level education, other programmes in	199		
First level education, programmes in	1		
Fishery, general programmes in	26221	36251	
Fishery, other programmes in	36299		
Fishery, programmes in	262	362	562 56272 662
	66272	762	76272 962
Fishery science and technology, programmes in	66273	76272	
Fishery, specialized programmes in	26225		
Food and drink processing trades, programmes in	27436		
Food management, programmes in	56612		
Food preservation, programmes of pre-vocational training in	26608		
Food processing, programmes in	27436	37436	57422
Food research, programmes in	76612		
Food research, programmes with an emphasis on	66612		
Food sciences and technology, programmes in	66222	76222	
Food service, programmes in	57422		
Forest products technology, programmes in	56262		
Forestry and forest products technology, programmes in	56262		
Forestry engineering, programmes in	55452	65463	75463

Forestry, general programmes in	26211	36231		
Forestry, other programmes in	36299			
Forestry, programmes in	262	362	562	56262
	662	66262	762	76262
	962			
Forestry, specialized programmes in	26215			
Forestry technology, programmes in	56262			
Functional literacy, programmes in	110	11000		

G

General agricultural programmes	26201	36201	56201	66201
General commercial programmes	23401	33401	53401	
General educational sciences, programmes in the	71401			
General education, special programmes in	18001			
General elementary programmes	101			
General fishery programmes	26221	36251		
General forestry programmes	36231			
General home economics programmes	26601	36601	56601	66601
General humanities programmes	62201			
General medical auxiliary programmes	25001	35001		
General programmes	601			
General programmes containing little or no technical education	201	20100	301	
General programmes for children of pre-primary age	001			
General programmes in law	63801			
General programmes in mathematics	64601			
General programmes of art studies	51801	61801		
General programmes with a trade, craft or industrial emphasis	37401			

General programmes with emphasis on the humanities or the social and behavioural sciences	60102		
General programmes with emphasis on the natural or applied sciences	60105		
General programmes with no special subject emphasis	30101	60101	
General programmes with special emphasis on the humanities	30104		
General programmes with special emphasis on mathematics and natural or applied sciences	30108		
General programmes with special emphasis on other non-technical subjects	30199		
General programmes with special emphasis on the social sciences	30104		
General teacher training programmes	31401	51401	61401
General trade and craft programmes	27401		
Geography, programmes in	63062	73062	
Geological sciences, programmes in	54222	64222	74222
Graphic arts, programmes in	37428	57442	

H

Handicapped children, training for teachers of	31422	51422	61422
Handicapped, programmes with specialization in the education of the	71412		
Handicapped, special programmes for the	080	180	280 380
Handicapped, mentally, special programmes for the	18005	28005	
Handicrafts, programmes in	31812	51812	958
Health, animal, programmes in	56232		
Health-related auxiliary programmes	250	350	
Health-related auxiliary programmes, other	25099	35099	
Health-related programmes	950		

History of art, programmes in the	71802				
History of law, programmes in the	73802				
History, programmes in	62251	72251			
Hobbies, programmes in	958				
Home economics (domestic science) programmes	266	366	566	666	766
	966				
Home economics programmes, general	26601	36601	56601		
	66601				
Home economics programmes, other	26699	36699	56699		
	66699	76699			
Home economics programmes with emphasis on household and consumer food research; nutrition	66612				
Home economics programmes with emphasis on household arts	56632	66632			
Home economics programmes with specialization in cooking and baking	26608				
Home economics programmes with specialization in dressmaking and sewing	26604				
Horticulture, programmes in	66206	76206			
Household arts, programmes in	76632				
Household arts, programmes with an emphasis on	56632	66632			
Household food management, programmes with an emphasis on	56612				
Household food research, programmes in	76612				
Household food research, programmes with an emphasis on	66612				
Humanities, general programmes in the	62201				
Humanities, general programmes with an emphasis on the	60102				
Humanities, general programmes with a special emphasis on the	30104				
Humanities, other programmes in the	52299	62299	72299		

Humanities, programmes in the	522 622 722 922
Hygiene, programmes in	65062
See also - Health, animal	
Health, public	

I

Industrial and domestic electricity, programmes in	57402
Industrial engineering, programmes in	55426 65426 75426
Industrial programmes	274 374 574 974
Industrial programmes, other	27499 37499 57499
Industry, general programmes with an emphasis on	37401
Institutional administration, programmes in	53452 63452 73452
Interior design, programmes in	61852 71852
International law, programmes in	73804
Interpreters and translators, programmes for	52202
Investment analysis, programmes in	53432
Investment, programmes with specialization in	73407

J

Journalism, programmes in	59902 69902 79902
Jurisprudence and history of law, programmes in	73802
Jurisprudence, other programmes in	73899
Jurisprudence, programmes in law and	638 738

K

Kindergarten teachers, training programmes for	31412 51412 61412
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L

Laboratory assistant programmes	37451
Laboratory technician programmes	57462
Labour law, programmes in	73806
Landscape architecture, programmes in	55812 65812 75812
Language, current or vernacular, programmes in	52211 62211 72211
Languages, "dead", programmes in	62221 72221
Language ("foreign" or second language) programmes	920
Languages, living, programmes in	62215 72215
Languages, other programmes in	52208
Law and jurisprudence, other programmes in	73899
Law and jurisprudence, programmes in	638 738
Law enforcement, programmes in	59912
Law, general programmes in	63801
Law, history of, programmes in	73801
Law, international, programmes in	73804
Law, labour, programmes in	73806
Law, maritime, programmes in	73808
Law, programmes in	938
Leather trades, programmes in	27432 37432
Lens-making, optical, programmes in	57452
Library science, programmes in	69922 79922
Library technicians, training programmes for	59922
Linguistics, programmes in	62231 72231
Literacy, functional, programmes in	110 11000
Literacy, simple, programmes in	108
Literacy, adult, teacher training for teachers of	21416

Literature, comparative, programmes in	62241	72241
Literature of current or vernacular languages	52211	62211 72211
Literature of "dead" languages, programmes in the	62221	72221
Literature of living languages, programmes in the	72215	
Living languages, programmes in other	72215	
Living languages, programmes in the literature of	72215	

M

Maritime law, programmes in	73808	
Marketing, programmes in	53462	
Marketing, programmes with specialization in	73405	
Materials technology, programmes in	55412	
Mathematics, applied, other programmes in	54639	
Mathematics, general programmes in	54601	64601
Mathematics, general programmes with special emphasis on	30108	
Mathematics, other programmes in	64639	74639
Mathematics, programmes in	546	646 746 946
Mechanic trades, programmes in	57408	
Mechanical engineering, programmes in	55442	65442 75442
Mechanical repair trades, programmes	27422	
Mechanics, programmes for	37422	
Medical and para-medical programmes	550	650
Medical and para-medical programmes, other	55099	65099
Medical auxiliaries, general programmes for	25001	35001
Medical science, other programmes in	75099	
Medical science, programmes in	750	
Medical specialities, programmes in	75002	

Medical technology, other programmes in	55039			
Medical technology, programmes in	65042			
Medical x-ray technology, programmes in	55032			
Medicine, programmes in	65002			
Medicine, rehabilitation, programmes in	65052			
Medicine, veterinary, programmes in	66232	76232		
Mentally handicapped, special programmes for the	18005	28005		
Metal trades, programmes in	27404	37404	57412	
Metallurgical engineering, programmes in	55432	65432	75432	
Meteorology, programmes in	64252	74252		
Midwifery, programmes in	25021	35021	55015	
Military training, other programmes in	69919	79919		
Military training, programmes in	59917			
Mining engineering, programmes in	55436	65436	75436	
Motor vehicle operation, programmes in	37008	57008		
Museum technicians, programmes for the training of	59925			
Music, programmes in	31822	51822	61822	71822

N

Natural sciences, general programmes with emphasis on	60105			
Natural sciences, general programmes with special emphasis on	30108			
Natural science, other programmes in	54299	64299	74299	
Natural science, programmes in	542	642	742	942
Nautical science, programmes in	69972			
Non-technical subjects, general programmes with special emphasis on other	30199			
Non-vocational subjects, teacher training with specialization in	51404			

Non-vocational subjects, programmes in educational with specialization in curriculum development in	71401			
"Notaires", programmes for	63812			
Nursing, programmes in	25011	35011	55012	65032
Nutrition, programmes in	76612			
Nutrition, programmes with an emphasis on	36612	56612	66612	

O

Occupational therapy, programmes in	55022			
Oceanography, programmes in	64262	74262		
Odontology, programmes in	65012			
Office machines, programmes in the operation of	33414			
Optical-lens making, programmes in	57452			
Optometry, programmes in	55062			

P

Painting, programmes in	31804	51804	61804	71804
Para-medical programmes	550	650		
Para-medical programmes, other	55099	65099		
Pharmacy, programmes in	55052	65052		
Philosophy, programmes in	62271	72271		
Philosophy of art, programmes in	71802			
Photography, programmes in	51842			
Physical education, programmes in	59962	69962	958	
Physically handicapped, special programmes for the : See - Handicapped				
Physics, programmes in	54232	64232	74232	
Physiotherapy, programmes in	55022			
Police work, programmes in	59912			

Political science, programmes in	53022	63022	73022
Postal service programmes	37026	57026	
Post-primary age, general programmes for children of	001		
Pre-school teachers, training programmes for	31412	51412	61412
Pre-vocational training in cooking and food preservation	26608		
Pre-vocational training in dressmaking and sewing	26604		
Printing, programmes in	27428		
Psychology, programmes in	53052	63052	73052
Public administration, programmes in	53442	63442	73442 934
Public health inspection, programmes in	55002		
Public relations, programmes in	59907	69907	79907

R

Radio broadcasting, programmes in	59904	69904	79904
Railway operating trades, programmes in	37006	57006	
Regional cultures, programmes in	63072	73072	
Rehabilitation medicine, programmes in	65052		
Religion, programmes in	326	526	626 726 926
Repair trades, programmes in	57408		
Road motor vehicle operation, programmes in	37008	57008	

S

Sales, programmes in	53462		
Science, actuarial, programmes in	54621	64621	74621
Science, biological, programmes in	54202	64202	74202
Science, computer, programmes in	546	54641	62241 646
	64641	746	74641 946

Science, domestic (home economics) programmes in	266 366 566 666 766 966
Science, education, programmes in	614 714
Science, fishery, programmes in	66272 76272
Science, food, programmes in	66222 76222
Science, geological, programmes in	54222 64222 74222
Science, library, programmes in	69922 79922
Science, medical, programmes in	750 75099
Science, natural, programmes in	542 54299 642 64299 742 74299 942
Science, nautical, programmes in	69972
Science, political, programmes in	53022 63022 73022
Science, soil and water, programmes in	56226 66226 76226
Sculpturing, programmes in	51808 61808 71808
Second-level education, first stage	2
Second-level education, second stage	3
Secretarial training, programmes in	33404 53402
Security, civil, programmes in	59919 69919 79919
Service trades programmes	27442 37442 57442
Sewing, home economics programmes of pre- vocational training in	26604
Ships' officer programmes	37004 57004
Shorthand, programmes in	23404
Simple literacy, programmes in	108 10800
Social and behavioural science, programmes in	530 630 730 930
Social and behavioural science, general programmes in	63001
Social and behavioural science, other programmes in	53099 63099 73099
Social sciences, general programmes with special emphasis on	30104

Social welfare, programmes in	69932	79932		
Social work, programmes in	59932			
Sociology, programmes in	53032	63032	73035	
Soil and water sciences, programmes in	66226	76226		
Soil and water technology, programmes in	56226			
Special programmes for the handicapped	080	180	18001	280 28001
	380	38001		
Special programmes for the mentally handicapped	18005	28005		
Specialized agricultural programmes	26205			
Specialized fishery programmes	26225			
Specialized forestry programmes	26215			
Specialized teacher training, other programmes in	31499	51499		
Sports, programmes in	958			
Statistics, programmes in	54611	64611	74611	
Stenography: See - Shorthand				
Stock market analysis, programmes in	53432			
Stomatological specialities, programmes in	75012			
Stomatology, programmes in	65012			
Structural architecture, programmes in	55802	65802	75802	
Surgery, programmes in	65002			
Surveying, programmes in	55402			

T

Teacher trainers, programmes for training	61432			
Teacher training, programmes in education for	71432			
Teacher training for elementary school teaching, general programmes in	21401			
Teacher training for specialists	21409			

Teacher training for teacher trainers	61432					
Teacher training for teachers of adult education, programmes in	21408	31416	51416	61416		
Teacher training for teachers of adult literacy	21416					
Teacher training for teachers of handicapped children, programmes in	31422	51422	61422			
Teacher training for teachers of practical or vocational subjects, programmes in	21408	31408	51403	61408		
Teacher training for teachers of pre-school and kindergarten, programmes in	31412	51412	61412			
Teacher training for teachers of vocational subjects, programmes in	21408	51408	61408			
Teacher training, general programmes in	31401	51401	61401			
Teacher training, other programmes in	51499	61499	71499			
Teacher training, programmes in	214	314	514	614	714	914
Teacher training, specialized, other programmes in	31499	51499				
Teacher training with specialization in a non-vocational subject, programmes in	51404	61404				
Teacher training with specialization in a vocational subject, programmes in	31408					
Technical education, general programmes containing little or no	201	20100				
Television broadcasting, programmes in	59904	69904	79904			
Textile technology, programmes in	57432					
Textile trades, programmes in	27432	37432				
Theology, programmes in: See - Religion						
Therapy, occupational, programmes in	55022					
Third level education	5	599	59999	6	601	699
	69999	7	799	79999		
Town planning, programmes in	558	55822	658	65822		
	758	75822	958			

Trade, general programmes in	27401
Trades, general programmes with an emphasis on	37401
Trades, other programmes in	27499 37499 57499
Trades, programmes in	274 374 574 974
Translators, programmes for	52202
Transport, programmes in	370 570 970
Typing and shorthand programmes	23404
Typists: See - Clerical-typist programmes	

V

Vehicle operation, programmes in	57008
Vernacular languages, programmes in	52211 62211 72211
Veterinary medicine, programmes in	66232 76232
Vocational counselling, programmes in	59942 69942 79942
Vocational subjects, programmes in education with specialization in curriculum development in	71408

W

Water sciences, programmes in	66226 76226
Water technology, programmes in	56226
Welfare, social, programmes in	69932 79932
Woodworking trades, programmes in	27408 37408

X

X-ray technology, programmes in	55032
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